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Box 7

8NS-104-94-077, Miscellaneous
Correspondence & Memos, 1897-1994

History of the Denver Mint



INSIDE: Important details
about historic United States
Congressional Coins.



UNITED STATES MINT
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555

HERE IS THE INFORMATION YOU REQUESTED
FROM THE UNITED STATES MINT

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DEPARTMENT OF THE TREASURY
UNITED STATES MINT
WASHINGTON, D.C. 20220

PRESENTING A LIMITED-TIME OPPORTUNITY TO ACQUIRE
PRECIOUS COMMEMORATIVE COINS IN HONOR OF THE
BICENTENNIAL OF OUR UNITED STATES CONGRESS.

*Please read details below about how you can help preserve and restore
the historic public areas of our Nation's Capitol Building.*

Dear Friend of the United States Mint:

The 200th Anniversary of the Congress of the United States is a once-in-a-lifetime event in which every American can take special pride.

This historic Bicentennial celebrates the courageous commitment of the American people to build and preserve a government that is truly "by the people."

Inside this letter you'll find the official details of three limited-edition commemorative coins to honor this most important triumph of democracy.

Introducing an official tribute
to the Triumph of Democracy:
UNITED STATES CONGRESSIONAL COINS.

To commemorate the Bicentennial of the Congress of the United States, the President has signed legislation which authorizes the United States Mint to issue legal-tender gold, silver, and half dollar coins in strictly limited-edition.

An important contribution to our legacy of freedom.

As required by law, a portion of the proceeds from the sale of United States Congressional Coins goes directly to the United States Capitol Preservation Commission.

The Commission will use these funds to preserve and restore the historic public areas of our Capitol Building in Washington D.C. So, in addition to acquiring an extremely important commemorative, your purchase helps maintain our most cherished landmark of freedom.

(over, please)

LIMITED-EDITION OFFER ENCLOSED.

Legal-tender gold, silver, and half dollar coins
produced in strictly limited-edition.

As Official legal tender, a five dollar gold coin, a one dollar silver coin, and a half dollar coin are being produced to honor the Bicentennial of the Congress of the United States. Each limited-edition coin is available in your choice of proof or uncirculated quality.

Proof Coins: Meticulously crafted with a frosted image on a mirror-like background.

Uncirculated Coins: Exhibiting exacting craftsmanship with a lustrous satin finish.

The Gold Five Dollar Coin is struck in .900 fine gold and designed by award-winning United States Mint Engraver John Mercanti. A spectacular rendition of the Capitol dome rises from the obverse with intricate detail. The reverse features a dramatic portrait of the majestic eagle overlooking the canopy in the Old Senate Chamber.

The Silver Dollar Coin is struck in .900 fine silver and designed by William Woodward -- whose inspiring work is appearing for the first time on a United States Mint coin. The obverse shows the Statue of Freedom, which towers at the peak of the Capitol Dome. The reverse displays the Mace of the House of Representatives -- the symbol of authority of the Sergeant-At-Arms.

The Half Dollar Coin is struck in high-grade cupro-nickel clad to pure copper. Designed by renowned medallist sculptor Patricia L. Verani, the obverse features the bust of the Statue of Freedom. The reverse, designed by William Woodward, offers a full view of the Capitol Building.

Each coin bears a mint mark and the legend: BICENTENNIAL OF THE CONGRESS - 1789-1989. Each is accompanied by a Certificate of Authenticity.

Coins are reasonably priced since the Coin Act limits the surcharges added to the production cost of these coins to: \$35 for the Gold Five Dollar Coin; \$7 for the Silver Dollar Coin; and \$1 for the Half Dollar Coin.

For a limited time only, the United States Mint is proud to offer United States Congressional Coins in a wide variety of rich presentations for every taste and every budget. To order your selections, simply return the enclosed Order Form by mail or call toll free 1-800-822-6500.

Single Coin Presentations.

Proof and Uncirculated Gold Five Dollar coins and Proof Silver Dollar coins are available individually in protective capsules and packaged in presentation cases. Uncirculated Silver Dollar coins and Proof Half Dollar coins are sealed in protective capsules and gift-boxed. Economically priced Uncirculated Half Dollar coins are protected in Mylar® and a presentation envelope.

Keepsake Gift Sets.

Specially-Priced Two-Coin Set features Silver Dollar and Half Dollar coins individually sealed in protective capsules. Proof sets are packaged in an elegant presentation case. Uncirculated sets come in an attractive gift box.

Collector's Three-Coin Set of all three United States Congressional Coins -- each sealed in a protective capsule -- are packaged in a presentation case. Available in proof and uncirculated quality.

Complete Issue Six-Coin Set of proof and uncirculated quality United States Congressional Coins -- each coin sealed in a protective capsule -- comes in a rich cherrywood presentation case.

The 1989 Prestige Set featuring TWO United States Congressional Coins.

This exclusive collector's prize is truly distinctive with two United States Congressional Coins. A Silver Dollar Proof and a Half Dollar Proof are presented with five standard proof coins for this Congressional Bicentennial year: the half dollar, quarter dollar, dime, nickel, and one-cent coin. This collection is displayed in an exceptional Library Edition Showcase featuring the Great Seal of the United States and bound with luxurious velvet.

Available for a limited time only.

United States Congressional Coins are available in limited-edition. I urge you to act quickly and order your coins today.

PLEASE NOTE: For any inquiries about your order, please contact: Customer Service Center, United States Mint, 10001 Aerospace Drive, Lanham, Maryland 20706, (301) 436-7400

(over, please)

Return your Order Form by mail or
call toll free 1-800-822-6500.

Complete the Order Form inside this package (use the form in your brochure to pass along to family and friends). Mail it with your check or credit card number in the enclosed reply envelope. Or, if you prefer, call toll free, 24 hours a day, 1-800-822-6500.

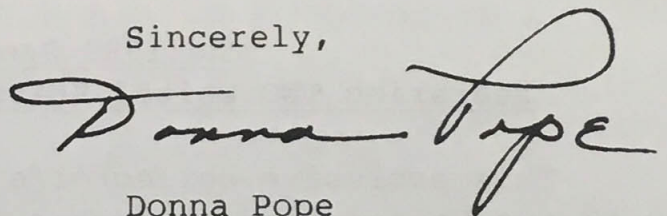
Request your limited-editions today.

I urge you to take a moment now to complete your Order Form or call the toll-free number and become a part of this triumphant celebration of democracy with United States Congressional Coins.

Remember, a portion of the proceeds from the sale of United States Congressional Coins helps to preserve and restore historic public areas of our Capitol Building -- maintaining our legacy of freedom for future generations.

To purchase your limited-editions, simply complete your Order Form and return it by mail. Or, call toll free 1-800-822-6500 -- and join all America in proclaiming the triumph of democracy.

Sincerely,

A handwritten signature in black ink, reading "Donna Pope". The signature is fluid and cursive, with a large, stylized "P" at the end.

Donna Pope
Director
United States Mint

P.S. Due to the national importance of these coins, I urge you to return your Order Form or call toll free 1-800-822-6500.

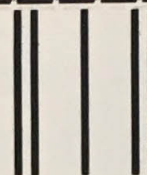


Detach here, fold over and seal and return by mail.

Name _____

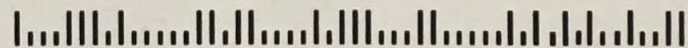
Address _____

City _____ State _____ Zip _____



PLACE
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THE UNITED STATES MINT
PO BOX 8528
PHIL PA 19162-0025





Official Limited-Edition Coinage of the United States Mint



UNITED STATES CONGRESSIONAL COINS

Proclaiming the Triumph of Democracy

...inside for a special commemorative opportunity



The Congress of the United States 1789-1989

A BRILLIANT TRIBUTE TO THE HEART AND SOUL OF OUR DEMOCRACY.

A young country seeks a better way to govern.

When our Congress first met on March 4, 1789, we were a struggling young nation of 13 individual States. To bring us together as one, the new Constitution mandated the creation of a new Congress.



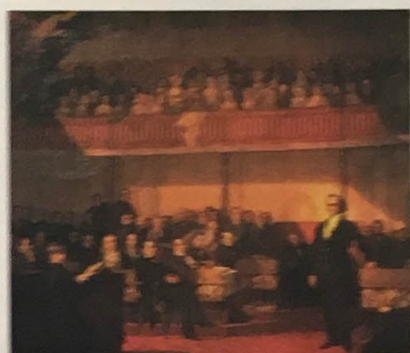
Building a single nation of many peoples.

Unlike other lawmaking bodies of the time, Congress truly reflected the diversity of the people it governed - farmers and merchants, soldiers and politicians, commoners and aristocrats.

Other countries believed this idea of the people making their own laws was certain to fail.



Forging a wilderness into a land of opportunity.



Soon, from the Atlantic to the Pacific, America grew as Congress planted the seeds of expansion. And from around the world, people came to reap the rewards of a truly free democracy.

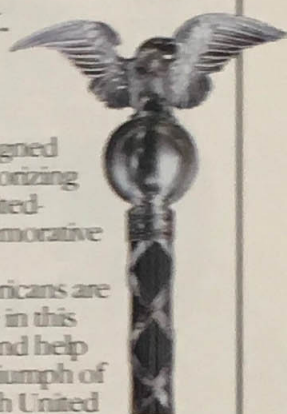
For 200 years, Congress has been a tribute to the American people and our capacity for self-government. Today, it is only appropriate that we offer a distinguished tribute to this historic Bicentennial.

Presenting limited-edition commemorative coins from the United

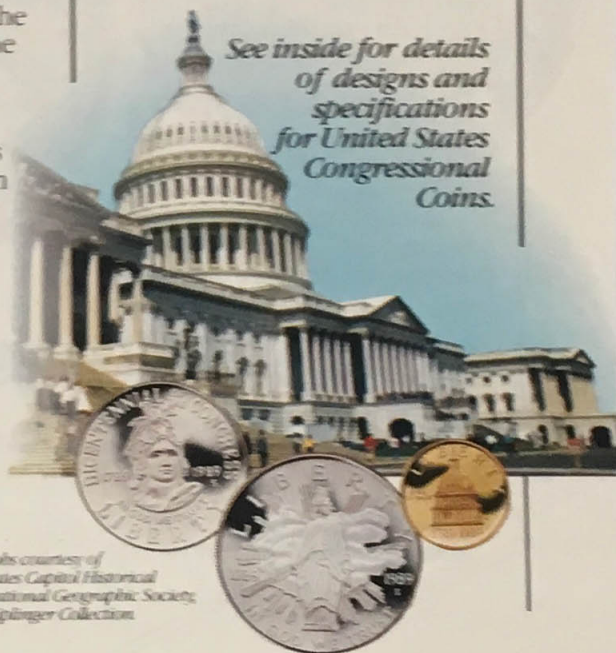
States Mint.

To celebrate this triumph of democracy, the President has signed legislation authorizing issuance of limited-edition commemorative coins.

Now, all Americans are invited to share in this historic event and help Proclaim the Triumph of Democracy with United States Congressional Coins.



See inside for details of designs and specifications for United States Congressional Coins.



Photographs courtesy of United States Capitol Historical Society, National Geographic Society, and the Kiplinger Collection.

TAKE ADVANTAGE OF THIS HISTORIC LIMITED-EDITION OPPORTUNITY

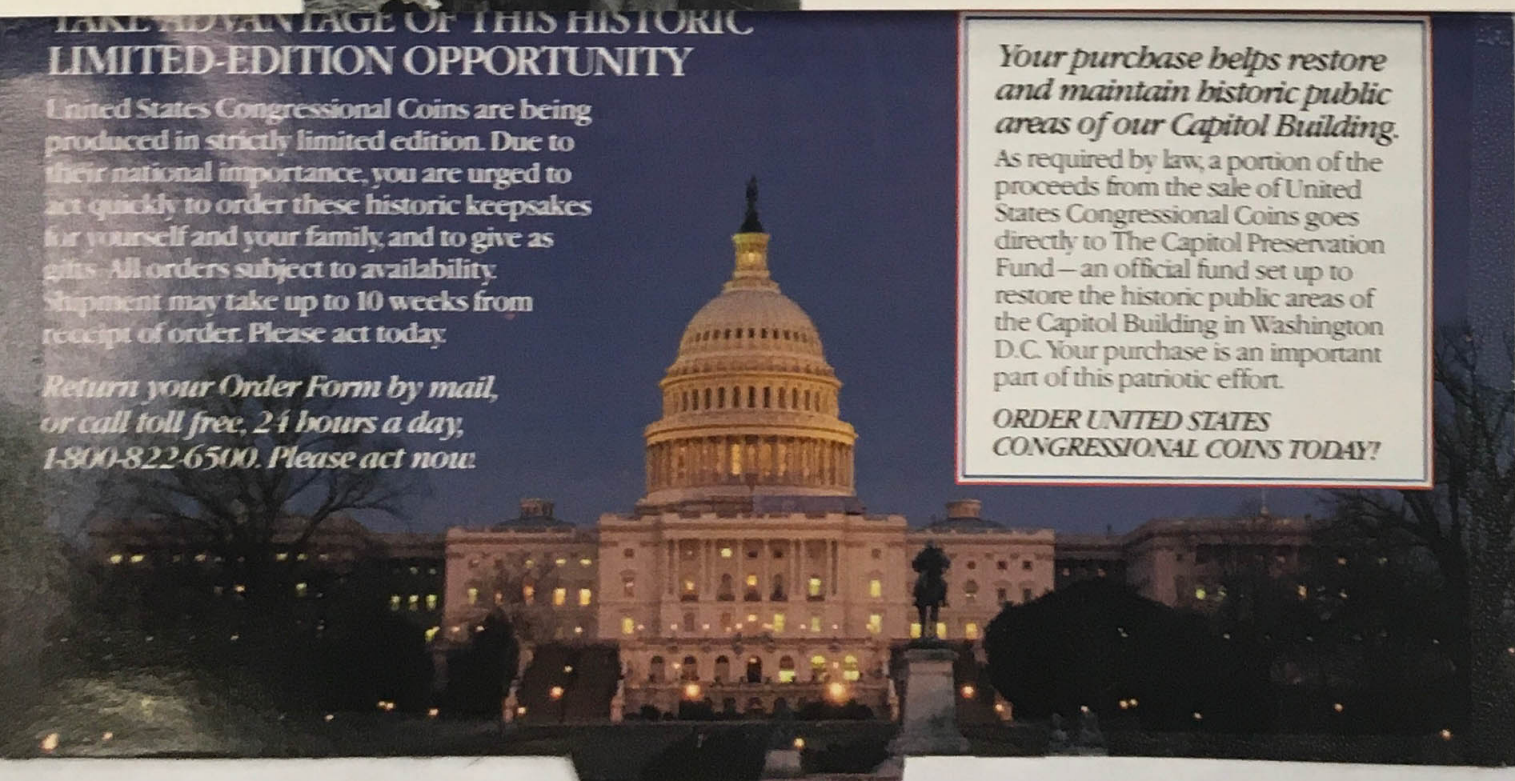
United States Congressional Coins are being produced in strictly limited edition. Due to their national importance, you are urged to act quickly to order these historic keepsakes for yourself and your family, and to give as gifts. All orders subject to availability. Shipment may take up to 10 weeks from receipt of order. Please act today.

Return your Order Form by mail, or call toll free, 24 hours a day, 1-800-822-6500. Please act now!

Your purchase helps restore and maintain historic public areas of our Capitol Building.

As required by law, a portion of the proceeds from the sale of United States Congressional Coins goes directly to The Capitol Preservation Fund - an official fund set up to restore the historic public areas of the Capitol Building in Washington D.C. Your purchase is an important part of this patriotic effort.

ORDER UNITED STATES CONGRESSIONAL COINS TODAY!



MOISTEN HERE
-FOLD OVER AND SEAL

for a limited time only.



UNITED STATES CONGRESSIONAL COINS

Select an individual tribute or a keepsake gift set.



Single Coin Presentations

Proof and Uncirculated Gold Five Dollar coins and Proof Silver

Dollar coins are available individually in protective capsules and packaged in presentation cases. Uncirculated Silver Dollar coins and Proof Half Dollar coins are also sealed in protective capsules and gift-boxed. Economically priced uncirculated Half Dollar coins are protected in Mylar® and a presentation envelope.

Specially-Priced Two-Coin Set

Choice of proof or uncirculated Silver Dollar and Half Dollar coins each sealed in protective capsules. The uncirculated coins are packaged in a gift box and the proof coins are packaged in a presentation case.

Three-Coin Set

Available in proof and uncirculated quality, includes all three United States Congressional Coins — individually encapsulated in a beautiful presentation case.

Six-Coin Set

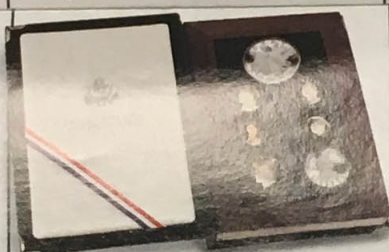
Set of proof and uncirculated quality United States Congressional Coins in a cherrywood case — with each coin sealed in a protective capsule.



The 1989 Prestige Set

Featuring TWO United States Congressional Coins.

The 1989 Prestige Set is truly distinctive with two United States Congressional Coins — a Silver Dollar Proof and Half Dollar Proof. This set also includes five standard 1989 proof coins: the half-dollar, quarter-dollar, dime, nickel, and one-cent coin. Coins are presented in an exceptional showcase of luxurious velvet.



▼ ORDER YOUR COINS TODAY — USE THE ENCLOSED ORDER FORM OR CALL TOLL FREE 1-800-822-6500. ▼



DEPARTMENT OF THE TREASURY
UNITED STATES MINT

UNITED STATES CONGRESSIONAL COINS

LIMITED-EDITION PASS-ALONG ORDER FORM

Please accept my order for the following United States Congressional Coins. I understand that orders are not valid until accepted by the Mint and that once accepted, orders may not be cancelled. All sales are final and not subject to refund or exchange. My credit card order will be billed immediately and cannot be thereafter cancelled. Coins may be delivered in multiple shipments. Verification of my order will be made by the Mint.

Code No.	Qty.	Item Description	Price Ea.	Total Cost
A01		Single Half Dollar Proof	\$ 8.00	
A02		Single Silver Dollar Proof	29.00	
A03		Two-Coin Proof Set: Half Dollar and Silver Dollar	34.00	
A04		Single Gold Five Dollar Proof	215.00	
A05		Three-Coin Proof Set: Gold Five Dollar, Half and Silver Dollar	245.00	
A06		Single Half Dollar Uncirculated	6.00	
A07		Single Silver Dollar Uncirculated	26.00	
A08		Two-Coin Uncirculated Set: Half Dollar and Silver Dollar	29.50	
A09		Single Gold Five Dollar Uncirculated	200.00	
A10		Three-Coin Uncir. Set: Gold Five Dollar, Half and Silver Dollar	225.00	
A11		Six-Coin Set: Three-Coin Proof Set, Three-Coin Uncir. Set	480.00	
A12		1989 Prestige Set	52.00	

CR1A139

Total Order Price

Name _____

Address _____

City _____ State _____ Zip _____

Daytime phone number for questions about your order
()

Method of Payment ☐ Check ☐ Money Order ☐ VISA ☐ MasterCard
Credit Card Account Number

Expiration Date -

Signature _____ Date _____

MAKE CHECKS PAYABLE TO THE UNITED STATES MINT. Do not send cash. Simply detach this Order Form, enclose your payment, fold and seal and return by mail. Please do not paperclip or mutilate this form. Should bullion prices increase significantly, the United States Mint reserves the right to limit quantities and may discontinue accepting orders. All orders are subject to availability. Shipment may take up to 10 weeks from receipt of order.

TAKE ADVANTAGE OF THIS HISTORIC LIMITED-EDITION OPPORTUNITY

United States Congressional Coins are being produced in strictly limited edition. Due to their national importance, you are urged to act quickly to order these historic keepsakes for yourself and your family, and to give as gifts. All orders subject to availability. Shipment may take up to 10 weeks from receipt of order. Please act today.

Return your Order Form by mail,
or call toll free, 24 hours a day,
1-800-822-6500. Please act now!

Your purchase helps restore and maintain historic public areas of our Capitol Building.

As required by law, a portion of the proceeds from the sale of United States Congressional Coins goes directly to The Capitol Preservation Fund — an official fund set up to restore the historic public areas of the Capitol Building in Washington D.C. Your purchase is an important part of this patriotic effort.

ORDER UNITED STATES
CONGRESSIONAL COINS TODAY!

MOISTEN HERE
FOLD OVER AND SEAL

NAME _____

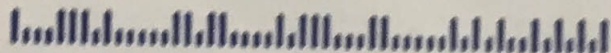
ADDRESS _____

CITY _____ STATE _____ ZIP _____



PLACE
STAMP
HERE

THE UNITED STATES MINT
UNITED STATES CONGRESSIONAL COINS
P.O. BOX 8140
PHILADELPHIA, PA 19162-0024



To order United States Congressional Coins:

1. Please use the Order Form enclosed for your use.
2. Please make check or money order payable to the United States Mint.
3. Please affix first-class postage to this envelope before you mail.

Your purchase helps restore the historic public areas of our Capitol Building.

Buy United States Congressional Coins today.

As required by law, a portion of the proceeds from the sale of United States Congressional Coins goes directly to The Capitol Preservation Fund — an official fund set up to preserve and restore the historic public areas of the Capitol Building in Washington D.C. Your purchase is an important part of this patriotic effort.

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DEPARTMENT OF THE TREASURY
UNITED STATES MINT

MAKE CHECKS PAYABLE TO THE UNITED STATES MINT. Please accept my order for the following United States Congressional Coins. I understand that orders are not valid until accepted by the Mint and that once accepted, orders may not be cancelled. All sales are final and not subject to refund or exchange. My credit card order will be billed immediately and cannot be thereafter cancelled. Coins may be delivered in multiple shipments. Verification of my order will be made by the United States Mint.

	Code No.	Qty.	Item Description	Price Ea.	Total Cost
1	A01		Single Half Dollar Proof	\$ 8.00	
2	A02		Single Silver Dollar Proof	29.00	
3	A03		Two-Coin Proof Set: Half Dollar and Silver Dollar	34.00	
4	A04		Single Gold Five Dollar Proof	215.00	
5	A05		Three-Coin Proof Set: Gold Five Dollar, Half and Silver Dollar	245.00	
6	A06		Single Half Dollar Uncirculated	6.00	
7	A07		Single Silver Dollar Uncirculated	26.00	
8	A08		Two-Coin Uncirculated Set: Half Dollar and Silver Dollar	29.50	
9	A09		Single Gold Five Dollar Uncirculated	200.00	
10	A10		Three-Coin Uncir. Set: Gold Five Dollar, Half and Silver Dollar	225.00	
11	A11		Six-Coin Set: Three-Coin Proof Set, Three-Coin Uncir. Set	480.00	
12	A12		1989 Prestige Set	52.00	

CR1A138

Total Order Price

United States Congressional Coins LIMITED-EDITION ORDER FORM

Do not send cash. Just place this Order Form in the enclosed reply envelope with your payment and mail. Please do not fold, paperclip, or mutilate this form. **Or, for your convenience, call toll free 1-800-822-6500.**

Method of Payment ☐ Check ☐ Money Order ☐ VISA ☐ MasterCard

Credit Card Account Number

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Expiration Date

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Signature _____ Date _____

Name _____

Address _____

City _____ State _____ Zip _____



United States Mint
P.O. Box 13316
Philadelphia, PA 19101-3316

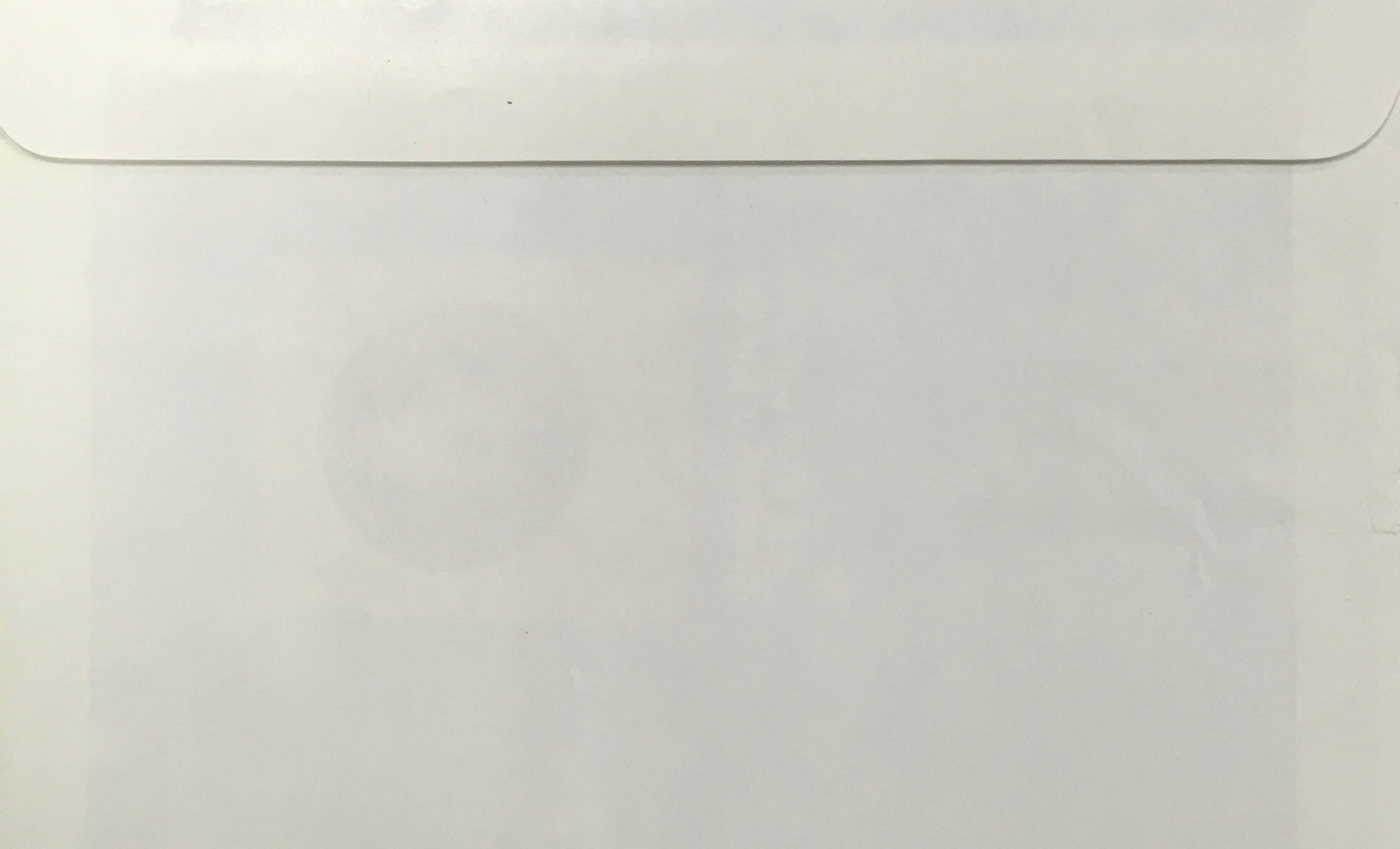
OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

PRESORT
FIRST CLASS MAIL
POSTAGE AND FEES PAID
UNITED STATES MINT
PERMIT NO. G-7



Sharing A Piece of America...
Official Coins and Medals of the United States Mint

NAME _____
ADDRESS _____
CITY _____ ST _____ ZIP _____





Sharing A Piece Of America

OFFICIAL COINS AND MEDALS
OF THE UNITED STATES MINT

Here in Washington, D.C., a woman dressed in flowing robes stands atop the Capitol dome. With her right hand on the hilt of a sword and her left hand grasping a shield, she symbolically guards the 535 men and women in the building below who make the laws that govern our nation. That woman, cast in bronze, is officially known as the Statue of Freedom.

This year, as the United States celebrates the bicentennial of Congress, it is particularly fitting that her image or the dome upon which she stands appears on new commemorative coins from the U.S. Mint. Her vigilance ensures that the words of John Adams will always ring true: Ours is "a government of laws, and not of men."

Freedom is also the theme with the new medals of the U.S. Mint. This year, we offer a bronze medal honoring Natan and Avital Shcharansky, who suffered and struggled for freedom in the Soviet Union. Also available is a medal honoring philanthropist Mary Lasker, whose contributions furthered research to free mankind from disease.



Coins and medals of the U.S. Mint are a special way to share a piece of America with your family and friends. Like few other endeavors, minting is a collaborative art. Each coin and medal is an exquisitely detailed product of artists, designers, engravers, and other craftsmen who have devoted their skill to make a uniquely American masterpiece.

You'll cherish these coins and medals not only for their beauty, but also for what they represent. Whether you give them as gifts or enjoy them as part of your personal collection, coins and medals are lasting symbols of the people, institutions, and ideas that shape our country. Passed on from generation to generation, these treasures link us to our children and grandchildren in a tradition that helps keep our families—and our nation—strong.

All of us at the U.S. Mint are proud to share these pieces of America with you. I'm sure you'll be proud to share them with your friends and family.

A handwritten signature in black ink that reads "Donna Pope".

Donna Pope
Director of the U.S. Mint

"For us, coins are a part of a family history we share."

"When my father passed his coin collection to me, he gave me more than a family heirloom—he gave me a piece of himself. He loved those old coins. And he taught me to appreciate the careful attention to detail that went into every one and the rich national heritage represented in their designs."

"Now, my coin collection holds precious memories for my kids. I want to give them what my father gave me, and more. I want to share with them my love of coins and love of country."



1989 CONGRESSIONAL COINS

Pride shines in each of the 1989 coins commemorating the bicentennial of the U.S. Congress—the pride of artists and craftsmen who have dedicated their talent and skill to produce these American masterpieces. You and your family can share that pride for generations to come by owning and showing the Gold Five Dollar, Silver Dollar, and Half Dollar coins, each available in proof and uncirculated editions.

The proof coins are the highest examples of the minter's art. To produce them, blanks are carefully loaded one at a time on the press and struck twice or more with specially processed dies. The result is a coin with sharp, cleanly defined designs that appear delicately frosted against the mirror-like sheen of the coin's field. The uncirculated versions, with their uniform lustrous finish, are coins taken directly from the press and carefully packaged to preserve their freshly minted condition for your collection or gifts.

A portion of the proceeds from the sale of United States Congressional Coins goes directly to The Capitol Preservation Fund—an official fund set up to restore the historic public areas of the Capitol Building in Washington, D.C.



Gold Five Dollar Congressional Coin:

As an enduring symbol of our legislative democracy, this Gold Five Dollar coin will be treasured by you and your family for generations to come. Designed by sculptor/engraver John Mercanti of the U.S. Mint, the obverse features a dramatic rendition of the U.S. Capitol dome, with the Statue of Freedom at the pinnacle extending to the coin's top edge. The reverse depicts the spread eagle atop the canopy over the desk at which the vice-president presided in the Old Senate Chamber.

Proof and uncirculated Gold Five Dollar coins are available individually, encased in a protective capsule and packaged in an attractive presentation case.

Weight: 8.359 grams. Composition: 90% gold (.24 troy ounce), 10% alloy. Diameter: 0.850 inches. Mint and Mint Mark: West Point Mint, "W" (proof and uncirculated).

Price: \$215.00 (proof), Option A04

\$200.00 (uncirculated), Option A09

Silver Dollar Congressional Coin:

An American masterpiece in the minting art, this Silver Dollar coin symbolizes the freedom that Congress has embodied for 200 years and the authority that we, the people, have invested in our elected legislators. Washington, D.C. painter William Woodward depicted the Statue of Freedom, which gazes out over the nation's capital from the summit of the Capitol dome, on the obverse. The mace carried by the House of Representative's Sergeant at Arms is featured on the reverse.



Silver Dollar coins, both proof and uncirculated editions, are individually encapsulated for protection and packaged in a handsome presentation case.

Weight: 26.73 grams. Diameter: 1.5 inches.
Composition: 90% silver (0.76 troy ounce),
10% copper. Mint and Mint Mark: San Francisco,
"S" (proof) Denver, "D" (uncirculated).

Price: \$29.00 (proof), Option A02

\$26.00 (uncirculated), Option A07

Half Dollar Congressional Coin:

The powerful images of freedom and democracy on the Half Dollar coin remind us of the words of John Adams, that ours is "a government of laws, and not of men." Sculptor Patricia Lewis Verani of New Hampshire chose a bust of the Statue of Freedom as the dominant symbol for the obverse. Circled by a wreath of stars, the Capitol dome towers in the center of the reverse, with the building's two wings – the House and Senate – stretching from one edge to the other. The design for the reverse was created by William Woodward.

Proof Half Dollar coins are individually sealed in protective capsules and packaged in a handsome gift box. Uncirculated Half Dollar coins are protected in Mylar® inside a presentation envelope.



Weight: 11.34 grams. Diameter: 1.205 inches. Composition: 92% copper, 8% nickel.
Mint and Mint Mark: San Francisco, "S" (proof)
Denver, "D" (uncirculated).

Price \$8.00 (proof), Option A01

\$6.00 (uncirculated), Option A06



CONGRESSIONAL COMMEMORATIVE COIN SETS

Three-Coin Congressional Set: A complete set of all three Congressional coins – the Gold Five Dollar, Silver Dollar, and Half Dollar – is a must for the serious numismatist or thoughtful gift-giver. The dramatic designs of all three 1989 commemoratives will be a prized addition to your collection or a treasured gift holding fond memories of a special year. Packaged in an attractive presentation case, the three-coin set is available in either proof or uncirculated editions; each coin is protectively encapsulated for lasting beauty.

Price: \$245.00 (proof), Option A05

\$225.00 (uncirculated), Option A10

Two-Coin Congressional Set: Perfect for either gift-giving or displaying in your own collection, these handsomely packaged two-coin sets include either proof or uncirculated versions of the Silver Dollar and Half Dollar created especially to commemorate the 200th anniversary of the U.S. Congress. Proof coins are packaged in a presentation case; uncirculated coins are presented in a gift box. All coins are individually encapsulated for protection.

Price: \$34.00 (proof), Option A03

\$29.50 (uncirculated), Option A08

Six-Coin Congressional Set: The impressive six-coin Congressional set, comprising both proof and uncirculated editions of all three Congressional coins, is the ultimate way to give or collect these beautiful 1989 commemoratives. Presented in a finely crafted cherrywood case, the Gold Five Dollar, Silver Dollar, and Half Dollar in both uncirculated and proof versions will shine as lasting symbols of our legislative democracy to be treasured for years to come. The coins are individually sealed in protective capsules to preserve their beauty.

Price: \$480.00, Option A11

The 1989 Prestige Set: Bound in luxurious velvet, the Prestige Set features not only proofs of the Silver Dollar and Half Dollar, but also a complete set of five 1989 proof coins: the Kennedy half-dollar, Washington quarter, Roosevelt dime, Jefferson nickel, and Lincoln cent. Each coin bears the San Francisco ("S") mint mark. These 1989 coins, permanently sealed and beautifully arrayed in a striking library edition, will surely occupy a place of honor in your collection.

Price: \$52.00, Option A12



THE SUSAN B. ANTHONY DOLLAR

Since its introduction in 1979, the Susan B. Anthony dollar has been recognized as a coin of "firsts." It is the first U.S. coin in circulation to feature a specific woman from American history. Susan B. Anthony, the leading crusader in the women's suffrage movement of the 19th century, appears on its obverse. On the reverse, another first is symbolized: Apollo XI's historic lunar landing, when humans first set foot on a place other than Earth.

This year—the 10th anniversary of the first issue of the Susan B. Anthony dollar and the 20th anniversary of the Apollo XI moon landing—is a particularly appropriate time to give or receive these fine coins.



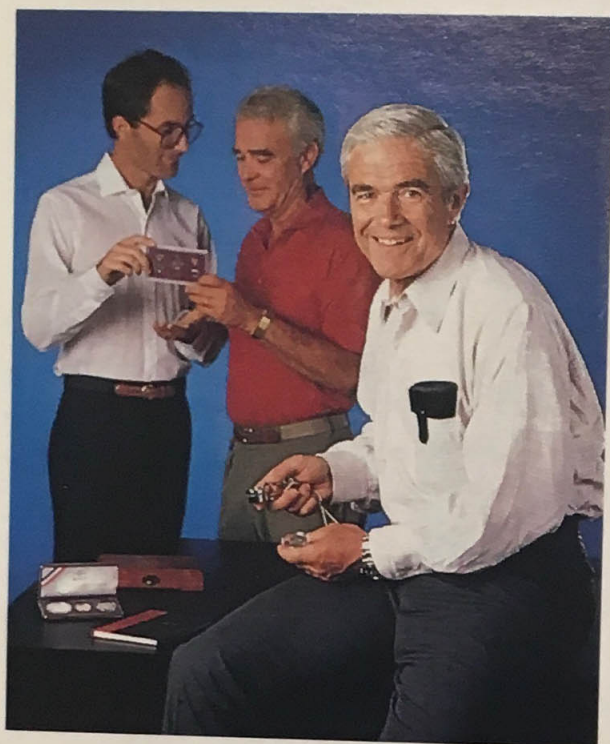
Uncirculated Susan B. Anthony Dollar Souvenir Set: The souvenir set is a superb way to collect or give all six editions of these fine coins, emblematic of the woman who pioneered voting rights. Each Susan B. Anthony dollar is sealed in protective Mylar®. You receive an uncirculated dollar from each of the three mints (Denver, Philadelphia, and San Francisco) for mintage years 1979 and 1980.

Price: \$10.00 per set, Option 055

Susan B. Anthony Dollar Coin Bags: For a truly unusual and memorable gift, consider Susan B. Anthony dollar coin bags. Both 100-coin and 2,000-coin bags are available, with Susan B. Anthony dollars from either 1979 or 1980 and bearing mint marks of the Denver, Philadelphia, or San Francisco Mints. The bags are stamped with the Mint and production year of their contents.

The accompanying chart shows a complete listing of prices and option numbers for your convenience when ordering.

Coins Per Bag	Year	Mint Mark	Option No.	Price
100	1979	P	060	\$ 110.00
100	1979	D	061	110.00
100	1979	S	062	110.00
100	1980	P	063	110.00
100	1980	D	064	110.00
100	1980	S	065	110.00
2,000	1979	P	074	2,050.00
2,000	1979	D	075	2,050.00
2,000	1979	S	076	2,050.00
2,000	1980	P	077	2,050.00
2,000	1980	D	078	2,050.00
2,000	1980	S	079	2,050.00



"I don't measure my collection by counting my coins, but by counting the friends I've made with them."

Coin collecting means a lot more to me than just the coins themselves. Since I've started collecting, a whole new world has opened up for me—a world filled with folks who share my love of finely crafted works with a uniquely American heritage.

"My coin club meets once a month. It's a chance for me to learn more about my hobby, to meet other collectors, and to make new friends. Sure, my collection is precious to me. But the camaraderie is even more precious. I can't begin to count the friendships that I've struck up over coins. Those friends—like those coins—will last a lifetime."



THE 1989 U.S. MINT PROOF COIN SET

Proof coins are so carefully crafted –and so beautiful to behold –that their distribution was once confined only to foreign dignitaries and our most distinguished citizens. Now, these extraordinary examples of the minting art are among the most prized additions in any numismatist's collection.

No other coins look quite like proofs because no other coins are made like them. Their sharply detailed, frosted images stand out from a brilliant, mirror-like surface.

The remarkable beauty of proof coins results from a painstaking minting process. Special dies are processed to achieve a delicately frosted texture; with the designs masked, the background is buffed several times with diamond polish to achieve the distinctive mirror-like smoothness. In minting each proof, a specially burnished "planchet," or blank, is individually loaded onto the press and struck at least twice.

After careful inspection to ensure that the coins are free of moisture, dust or other contaminants, they are sonically sealed in a protective plastic case. The result is an exquisitely detailed work of numismatic art that is yours to own and admire.

Like all U.S. Mint proof sets of circulating coinage issued since 1968, the 1989 sets are produced exclusively by the San Francisco Mint. Each attractively packaged set includes shining proofs of the Kennedy half dollar, Washington quarter, Roosevelt dime, Jefferson nickel, and Lincoln cent, all with the distinctive "S" mint mark.

Accompanying each set is a card that details the precise specifications for these minted masterpieces.

Price: \$11.00 per set, Option P89



THE 1989 U.S. MINT UNCIRCULATED COIN SET

Uncirculated coins are among the most prized in the numismatist's hierarchy. Produced on the same presses as "business struck," or circulated coins, uncirculated versions are distinguished by their pristine condition. U.S. Mint uncirculated coins always appear freshly minted and show not the slightest trace of wear. After striking, the coins are carefully cleaned and then packaged in clear Mylar® to protect their mint condition.

The complete 1989 Uncirculated Set contains ten coins—five from the Denver Mint and five from the Philadelphia Mint. In addition to a Kennedy half dollar, Washington quarter,

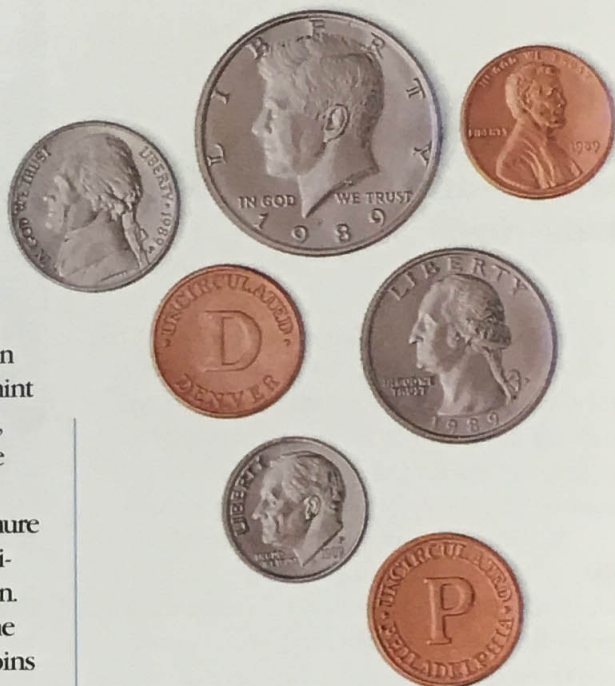


UNITED STATES MINT
COINS AND COIN SETS, 1989
UNCIRCULATED SETS
"MINT MARKS"

Roosevelt dime, Jefferson nickel, and Lincoln cent from both mints, you receive special mint mark pieces from Denver and Philadelphia, bearing the distinctive "D" and "P" from the respective mints.

Included with each set is a detailed brochure explaining the exact specifications and fascinating historical facts for each denomination. Novice collectors especially will treasure the lore, as well as the beauty, of the lustrous coins in the U.S. Mint Uncirculated Set.

Price: \$7.00 per set, Option U89



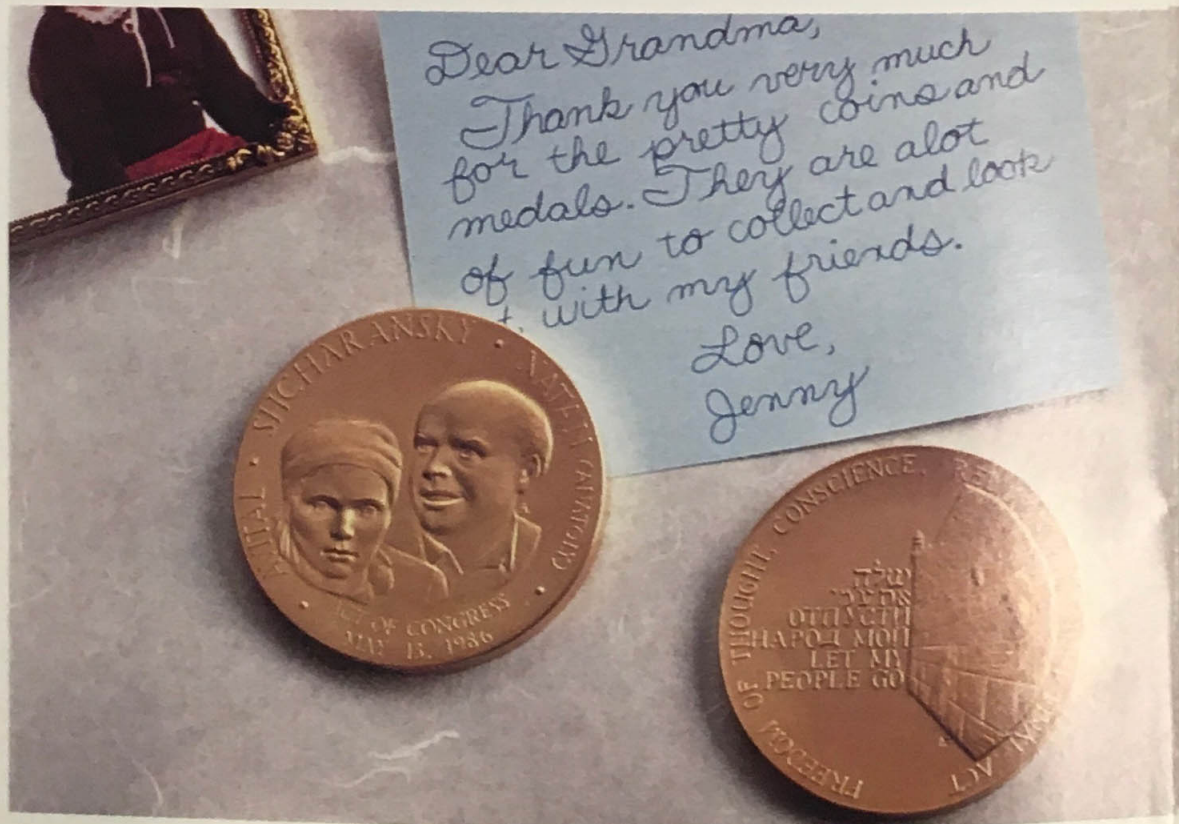
"The gifts I give my grandchildren always shine – and never need batteries!"

So many grandchildren, so many gifts! Birthdays, holidays, and special occasions used to put me in a fix. I could never keep up with the latest fads in toys, and I was tired of giving my precious grandchildren toys that they enjoyed only for a little while and then outgrew.

"Luckily, I discovered coins and medals from the U.S. Mint are the best gifts for any occasion. My grandchildren appreciate collectibles issued by the Mint now, and their appreciation will deepen as they grow older. Cartoon characters come and go, but the themes and symbols on



those beautiful coins and medals will never be out of style. I just feel better knowing that I've given my grandkids a gift they'll enjoy even when they have kids of their own."



OFFICIAL MEDALS OF THE U.S. MINT

On occasion, by special legislation, Congress authorizes the design and production of gold medals to honor certain distinguished men and women for their unique contributions to the nation and the world. The U.S. Mint proudly offers bronze versions of those medals to collectors, historians, students, teachers, and all who appreciate fine medallic art and the accomplishments of those honored personages. You and your family will surely value these medals not only as beautiful works of art but also as tributes to the eminent figures whom they celebrate.

Natan and Avital Shcharansky Medal: All who hold freedom dear recognize the courage of Natan Shcharansky and his wife, Avital. An outspoken advocate of human rights for Soviet Jews, Shcharansky endured nine years of imprisonment, forced labor, interrogation, and isolation for his beliefs. Throughout a 12-year separation enforced by Soviet authorities, Avital worked valiantly on her husband's behalf and focused the attention of the world on his plight and the cause of human rights. Their devotion

to one another and to liberty triumphed, and they were finally granted freedom and reunited. The medal's obverse features portraits of Natan and Avital Shcharansky.

The reverse, designed from themes suggested by Shcharansky family and friends, depicts the Wailing Wall in Jerusalem. Beside the wall, the ringing imperative from the Book of Exodus, "Let my people go," appears in Hebrew, Russian, and English.

Price: \$21.00 (3-inch medal), Option 691
\$2.25 (1.5-inch medal), Option 692

Mary Lasker Medal: From fighting mankind's most deadly diseases to adding a touch of green to New York City's urban landscape, Mary Lasker's philanthropy has touched many lives. Through the Albert and Mary Lasker Foundation, she has contributed to the advancement of medical research against cancer, heart disease, and mental illness. Her interest in urban beautification inspired her to fund the planting of hundreds of trees along New York City's Madison Avenue. Her contributions have made a profound impact on health research, urban beautification, and the fine arts.





Mount Rushmore Medals Set

A portrait of Lasker appears on the medal's obverse. The reverse shows a representation of the Winged Victory of Samothrace, (as used for the Albert Lasker Medical Research Award) and, in the background, the Mary Woodard Lasker Center for Health Research and Education at the National Institutes of Health in Bethesda, Maryland.

Price: \$21.00 (3-inch medal), Option 697

\$2.25 (1.5-inch medal), Option 698

Mount Rushmore Medals Set: In the spirit of patriotism that inspired Gutzon Borglum to sculpt a mountain in the image of four Presidents, the U.S. Mint proudly offers a beautifully packaged set of four Presidential Miniature Medals honoring the Presidents on Mount Rushmore. This special set includes miniature medals depicting George Washington, Thomas Jefferson, Abraham Lincoln, and Theodore Roosevelt – the figures depicted on a grand scale in the Black Hills of South Dakota. With the 50th anniversary of the monument's completion only two years away, the Mount Rushmore set is a perfect gift or personal memento to commemorate a national masterpiece.

Price: \$6.00 per set, Option 156

The Presidential Miniature Medal

Series: A superb introduction to U.S. history, these 1 5/16" bronze miniature medals are replicas of the official Mint Medals of the Presidents. A total of 40 Presidential Miniature Medals are available in four separate sets, depicting Presidents from George Washington through Ronald Reagan.

To store your collection, the U.S. Mint also offers a custom-crafted collector's album. A window with the President's name and term in office printed below allows both sides of each medal to be studied and admired. A special

Included with the Presidential Miniature Medal Collector's Album is a soft-cover companion book, *The Presidents of the United States of America*, featuring full-color portraits and biographies of each President, with a foreword by Ronald Reagan.

The Presidential Miniature Medal series, together with the Collector's Album, makes a truly rewarding gift, not only for its beauty but also for its educational value.

16 Medals (George Washington through Abraham Lincoln) Price: \$15.00 per set, Option 150

9 Medals (Andrew Johnson through Theodore Roosevelt) Price: \$10.00 per set, Option 151

8 Medals (William H. Taft through Dwight D. Eisenhower) Price: \$9.00 per set, Option 152

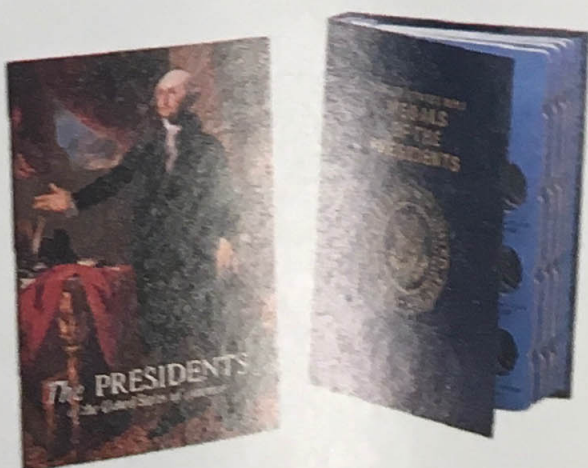
7 Medals (John F. Kennedy through Ronald Reagan, with White House Medal) Price: \$8.00 per set, Option 153

Collector's Album (without medals) and the book, *The Presidents of the United States of America*

Price: \$12.00, Option 043

Collector's Album (with complete set of medals) and the book, *The Presidents of the United States of America*

Price: \$54.00, Option 154



MEDALS TO TREASURE

Here are a few more of the popular medals offered by the U.S. Mint. All are multi-struck, hand-finished, 3-inch bronze medals, sealed in plastic and presented with a plastic display easel.

George Washington: Celebrate the 200th anniversary of the inauguration of our first President.

Price: \$21.00, Option 101

Benjamin Franklin: Honor one of America's most accomplished figures—writer, inventor, statesman, and patriot.

Price: \$21.00, Option 648

Abraham Lincoln: Cherish this tribute to the President who led our country through its most turbulent time.

Price: \$21.00, Option 116

Ronald Reagan: One of the Mint's most demanded medals, honoring our 40th president.

Price: \$21.00, Option 142

Chuck Yeager: Treasure this medal commemorating the consummate pilot who was first to fly through the sound barrier.

Price: \$21.00, Option 662

HOW TO ORDER

To order Proof, Uncirculated, and Prestige sets, as well as selected Congressional Coin options, enter the quantity desired in the appropriate block of the enclosed order form and show the total cost in the column at the right.

For other Congressional Coin options, as well as Susan B. Anthony Dollar and U.S. Mint Medals, enter the option number, item description, quantity, and cost in the spaces provided.

Payment: Please do not send cash. Pay with a personal check or a cashier's check drawn on a U.S. bank and payable in U.S. currency. U.S. or international money orders drawn in U.S. funds are also acceptable. Checks should be made payable to "United States Mint." For credit card purchases (VISA and MasterCard only), please provide complete card number, expiration date, and signature.

Checks will be deposited and credit card orders billed when received by the U.S. Mint. The Mint assumes no liabilities for lost payments. **Limitations:** Orders are not valid until accepted. The Mint reserves the right to

Charles Lindbergh: Celebrate the Lone Eagle's transatlantic flight with this beautifully sculpted medal. (Exact diameter 2.75 inches.)

Price: \$21.00, Option 645

John Wayne: A fitting way to remember this American hero from the silver screen.

Price: \$21.00, Option 666

Lady Bird Johnson: Honor the former First Lady whose efforts helped beautify our country.

Price: \$21.00, Option 687

Harry Chapin: Hold the memory of this talented singer/songwriter who devoted his music to ending world hunger.

Price: \$21.00, Option 693

George and Ira Gershwin: Honor two of America's most beloved music-makers with one of the Mint's newest medals.

Price: \$21.00, Option 689

decline or limit orders based on production constraints, statutory mintage ceilings, distribution allotments, or other reasons. All prices are subject to change.

Method of Shipment: Your order may be shipped by either registered mail, first-class mail, and/or United Parcel Service. Orders for multiple items may be shipped in separate packages.

Delivery: Please allow at least 8 weeks for delivery of your order. **(For Christmas delivery, however, the Mint will fulfill orders received no later than November 1, 1989.)**

U.S. Mint Mailing List: The U.S. Mint has only one customer mailing list. Your first order from the U.S. Mint automatically adds your name to the list. If you do not wish to order at this time, but do want to be placed on the list, send your name, address, and Zip Code to the following address: United States Mint, Customer Service Center, 10001 Aerospace Drive, Lanham, MD 20706, or call (301) 436-7400, 8:30 a.m.-5:00 p.m. EST, Mon.-Fri.



For further information, please write to:

Customer Service Center
United States Mint
10001 Aerospace Drive
Lanham, MD 20706

Or call (301) 436-7400

Please do not direct your calls or correspondence to other
U.S. Mint offices or facilities.

The United States Mint's numismatic
programs are self-supporting. All proceeds from sales,
after reimbursements for costs, are used for
public purposes as provided by statute.

Designed and printed in the U.S.A.

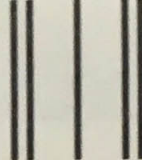
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ADDRESS

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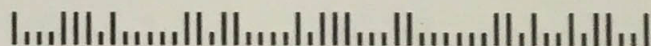
ZIP



PLACE
FIRST
CLASS
POSTAGE
HERE



United States Mint
PO BOX 13316
PHILA PA 19162-0014



Before sealing, please be sure to:

- **Enclose payment for the correct amount (if you are paying by check or money order), payable to the United States Mint**
- **Provide complete credit card information (if you are paying by credit card)**
- **Sign your order form and date as indicated**



DETACH ALONG PERFORATION, FOLD AND INSERT IN ENVELOPE

THE UNITED STATES MINT Order Form for Official Coins and Medals

Option No.	Qty.	Item Description	Price Ea.	Subtotal
A04		1989 Gold Five Dollar Proof Congressional Coin	\$215.00	
A09		1989 Gold Five Dollar Uncirculated Congressional Coin	\$200.00	
A02		1989 Silver Dollar Proof Congressional Coin	\$ 29.00	
A07		1989 Silver Dollar Uncirculated Congressional Coin	\$ 26.00	
A01		1989 Half Dollar Proof Congressional Coin	\$ 8.00	
A06		1989 Half Dollar Uncirculated Congressional Coin	\$ 6.00	
A05		1989 Three-Coin Proof Congressional Set	\$245.00	
A10		1989 Three-Coin Uncirculated Congressional Set	\$225.00	
A03		1989 Two-Coin Proof Congressional Set	\$ 34.00	
A08		1989 Two-Coin Uncirculated Congressional Set	\$ 29.50	
A11		1989 Six-Coin Congressional Set	\$480.00	
A12		1989 Prestige Set	\$ 52.00	
P89		1989 Proof Coin Set	\$ 11.00	
U89		1989 Uncirculated Coin Set	\$ 7.00	
O55		Susan B. Anthony Dollar Souvenir Set	\$ 10.00	
Bags of Susan B. Anthony Dollars				
691		Natan and Avital Shcharansky 3-Inch Medal	\$ 21.00	
692		Natan and Avital Shcharansky 1.5-Inch Medal	\$ 2.25	
697		Mary Lasker 3-Inch Medal	\$ 21.00	
698		Mary Lasker 1.5-Inch Medal	\$ 2.25	
156		Mount Rushmore Medals Set	\$ 6.00	

Total Order \$ _____ 154C926

DO NOT SEND CASH, MAKE CHECK OR MONEY ORDER PAYABLE TO:
UNITED STATES MINT.

METHOD OF PAYMENT ☐ Check ☐ Money Order ☐ VISA ☐ MasterCard

Credit Card Account No. _____

[illegible]

This space
for Mint use
only

Expiration Date: Month Year For Print Use Only

Signature _____ Date _____

Payment: Please do not send cash. Pay with a personal check or cashier's check drawn on a United States bank and payable in U.S. currency. United States or international money orders drawn in U.S. funds are also acceptable. Remittances by check should be made payable to "United States Mint." For credit card purchases (VISA and MasterCard only), please enter complete card number, expiration date, and provide signature. Checks will be deposited and credit card orders billed when received by the U.S. Mint. The Mint assumes no liability for lost payments.

Limitations: Orders are not valid until accepted. The Mint reserves the right to decline or limit orders based on production constraints, statutory mintage ceilings, distribution allotments, or other reasons. All prices are subject to change.

Method of Shipment: Your order may be shipped by either registered mail, first class mail, and/or United Parcel Service.

Orders for multiple items may be shipped in separate packages.

Delivery: Please allow at least 8 weeks for delivery of your order. (For Christmas delivery, however, the Mint will fulfill orders received no later than November 1, 1989.)

Take your place on the U.S. Mint Mailing List: The United States Mint has only one customer mailing list. Your first order from the U.S. Mint automatically adds your name to the list. If you do not wish to order at this time, but do want to be placed on the list, send your name, address and zip code to the following address: United States Mint, Customer Service Center, 10001 Aerospace Drive, Lanham, MD 20706.

Print Name _____

Street _____

City _____ State _____ Zip _____

Daytime Telephone () _____

DETACH ALONG PERFORATION, FOLD AND INSERT IN ENVELOPE

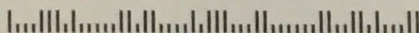
Name _____

Address _____

City/State/Zip _____

POST OFFICE
WILL NOT
DELIVER
WITHOUT
POSTAGE

The United States Mint
PO BOX 13348
PHILA PA 19162-0013



SELECTIONS FROM THE U.S. MINT CATALOGUE OF OFFICIAL COINS & MEDALS

Gold Five Dollar, Silver Dollar and Half Dollar Congressional Coins:

Celebrating the 200th anniversary of Congress, these masterpieces of the minting art will be treasured as enduring symbols of our legislative democracy. Both proof and uncirculated editions of Gold Five Dollar and proof versions of Silver Dollar Congressional Coins are individually encapsulated for protection and packaged in attractive presentation cases; uncirculated Silver Dollar coins and proof Half Dollars are also sealed in protective capsules and gift-boxed. Uncirculated Half Dollars are sealed in Mylar® inside a presentation envelope.



Gold Five Dollar Congressional Coin: Proof: \$215.00, Option A04
Uncirculated: \$200.00, Option A09

Silver Dollar Congressional Coin: Proof: \$29.00, Option A02
Uncirculated: \$26.00, Option A07

Half Dollar Congressional Coin: Proof: \$8.00, Option A01
Uncirculated: \$6.00, Option A06

Three-Coin Congressional Sets: Complete sets of all three Congressional Coins—the Gold Five Dollar, Silver Dollar, and Half Dollar—are available in either proof or uncirculated editions. Each coin is individually encapsulated for protection, and sets are offered in an attractive presentation case.

Proof: \$245.00, Option A05
Uncirculated: \$225.00, Option A10



Two-Coin Congressional Sets: These handsomely presented sets include either proof or uncirculated editions of both the Silver Dollar and Half Dollar Congressional Coins, each encapsulated for lasting beauty.

Proof: \$34.00, Option A03
Uncirculated: \$29.50, Option A08



Six-Coin Congressional Set: Both proof and uncirculated versions of all three Congressional Coins are featured in this impressive six-coin set.

The coins themselves are individually encapsulated and handsomely arrayed in a finely crafted cherrywood case.

\$480.00, Option A11



The 1989 Prestige Set: Featuring two Congressional Coins, proof versions of the Silver Dollar and Half Dollar, the Prestige Set also includes proofs of 1989 circulating coinage: the Kennedy half dollar, Washington quarter, Roosevelt dime, Jefferson nickel, and Lincoln cent. Coins are arrayed in an impressive library case, bound in luxurious velvet.

\$52.00, Option A12

The Susan B. Anthony Dollar: Celebrate the 10th anniversary of the issue of the Susan B. Anthony dollar by giving or collecting this historic American coin. Mylar®-sealed sets of six uncirculated coins—one from each of the three producing Mints from both 1979 and 1980—are available. Or, choose a 100- or 2,000-coin bag of Susan B. Anthony dollars from a particular year bearing mint marks of the Denver, Philadelphia or San Francisco Mints.



Uncirculated Souvenir Set: \$10.00, Option 055
Bags: Refer to chart for prices and option numbers.

Option No.	Coins Per Bag	Year	Mint Mark	Price	Option No.	Coins Per Bag	Year	Mint Mark	Price
060	100	1979	P	\$110.00	074	2,000	1979	P	\$2,050.00
061	100	1979	D	110.00	075	2,000	1979	D	2,050.00
062	100	1979	S	110.00	076	2,000	1979	S	2,050.00
063	100	1980	P	110.00	077	2,000	1980	P	2,050.00
064	100	1980	D	110.00	078	2,000	1980	D	2,050.00
065	100	1980	S	110.00	079	2,000	1980	S	2,050.00



The 1989 U.S. Mint Proof Coin Set: Delicately frosted designs against a gleaming, mirror-like background distinguish these coins as highly prized proofs. The set includes all five 1989 proofs—the Kennedy half dollar, Washington quarter, Roosevelt dime, Jefferson nickel, and Lincoln cent—sealed in a protective plastic case with a detailed specification card.

\$11.00, Option P89

The 1989 U.S. Mint Uncirculated Set: Pristine, uncirculated editions of the Kennedy half dollar, Washington quarter, Roosevelt dime, Jefferson nickel, and Lincoln cent from both the Philadelphia and Denver Mints are included in this ten-coin set. Also included are distinctive mint mark pieces from each of the two Mints. The Uncirculated Set is packaged in Mylar® and accompanied by an informative brochure.

\$7.00, Option U89



Official Medals of the U.S. Mint: These striking 3-inch bronze medals are meticulously crafted replicas of the gold medals recently authorized by Congress to honor men and women who have made lasting contributions to the nation and the world. The Natan and Avital Shcharansky medal commemorates this couple's valiant struggle for liberty and human rights. And the Mary Lasker medal salutes the philanthropist's efforts for health research, urban beautification, and the fine arts.

Natan and Avital Shcharansky Medal: \$21.00 (3-inch medal), Option 691/\$2.25 (1.5-inch medal), Option 692

Mary Lasker Medal: \$21.00 (3-inch medal), Option 697/\$2.25 (1.5-inch medal), Option 698



Mount Rushmore Medals Set: Anticipating the 50th anniversary of the completion of the Mount Rushmore sculptures, the U.S. Mint proudly presents four miniature medals depicting Presidents George Washington, Thomas Jefferson, Abraham Lincoln, and Theodore Roosevelt—the figures immortalized by Gutzon Borglum in the Black Hills of South Dakota. The four-medal set is protected by Mylar and accompanied by a descriptive text.



Please tear off carefully along perforation before inserting in return envelope.



UNITED STATES MINT

ORDER FORM FOR OFFICIAL CATALOGUE OF COINS AND MEDALS

Please accept my order as indicated below:

Option No.	Qty.	Item Description	Price Ea.	Subtotal
1 U89		1989 Uncirculated Coin Set	\$ 7.00	
2 P89		1989 Proof Coin Set	\$ 11.00	
3 A01		1989 Congress Half Dollar Proof	\$ 8.00	
4 A02		1989 Congress Silver Dollar Proof	\$ 29.00	
5 A03		1989 Congress Two-Coin Proof	\$ 34.00	
6 A04		1989 Congress Gold Five Dollar Proof	\$215.00	
7 A12		1989 Congress Prestige Set	\$ 52.00	
USE SPACE BELOW TO ORDER OTHER COINS, COIN SETS AND MEDALS (Please enter correct option number, item description and price.)				
This Space For Mint Use Only			Total Order	\$

See back of this form for important information.

Print change of address below.

Street Address

City State Zip

()

Daytime Telephone No.

DO NOT SEND CASH. Make check or money order payable to:
United States Mint. All sales are final and not subject to refund.

Method of payment:

☐ Check ☐ Money Order ☐ Visa ☐ MasterCard

Credit Card Account Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Expiration Date:

--	--

Month

--	--

Year

Credit cards will be billed and checks deposited upon receipt by the Mint.

Signature: _____ Date: _____

◀ This is your Customer Number. Please write
in upper right hand corner of your remittance.

NAME

ADDRESS

CITY

ST

ZIP

NOTICE FOR CUSTOMERS ORDERING COINS: Once accepted by the Mint, orders cannot be cancelled (including all credit card orders). Please allow at least 8 weeks for delivery of your order. **(For Christmas delivery, however, the Mint will fulfill all orders received no later than November 1, 1989.)** Items ordered may be delivered in multiple shipments, and the Mint reserves the right to limit quantities. Congress Coins are subject to maximum production established by the authorizing legislation and distribution allotments.

For any inquiry about your order, please contact: Customer Service Center, United States Mint, 10001 Aerospace Drive, Lanham, Maryland 20706, or call (301) 436-7400, 8:30 a.m. to 5:00 p.m. EST, Monday through Friday.



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204

The coin you refer to is a commemorative Medal of the Denver Mint, which was produced in 1971. The composition of the medal is 90 percent copper and 10 percent zinc. The engraver of the medal was Edgar Steever.

The medal is sold over-the-counter at the Denver Mint for \$.50. The Bureau of the Mint does not place a numismatic value on coins.

If you wish to order the commemorative medal, we are enclosing a brochure and order form on "Medals of the United States Mint," which lists all items available for sale. Mail orders are accepted at the Bureau of the Mint, 55 Mint Street, San Francisco, CA 94175.



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204-2693

May 31, 1989

Dr. Julia Gonzales
4790 Jackson Street, #219
Riverside, CA 92503

Dear Dr. Gonzales:

Mint marks designating where coins are produced were not placed on Philadelphia-struck coins before 1979 (except 1942-45 five-cent pieces). Beginning in 1979, the letter "P" was used on the dollar and thereafter on all other denominations except the cent. It seems very possible that you may have a 1974 quarter minted at the Philadelphia Mint.

Thank you for your interest and if we can be of further assistance, please let us know.

Sincerely,

Tito E. Rael, Chief
Exhibits and Public Sales

For Cash:

I have a 1974.
Quarter with no mint
marks in new condition
is it valuable?
Thank you.



Dr. Julia Gonzalez
D.D., M.A., D.M., Ph.D., R.
4790 Jackson Street #219
Riverside, CA 92503

2023 Hepler Rd.
Carlsbad, NM 88220

December 6, 1988

United States Mint

Denver, Colorado 80202

RECEIVED

DEC 13 1988

OFFICE OF
SUPERINTENDENT
U.S. MINT AT DENVER

Dear Sir or Madam:

I am a fourth grader at Sunset Elementry School. I am especially interested in learning about the different kinds of coins in the U.S. and world. I would appreciate it if you could answer any of the following questions:

1. How did people obtain things they needed before they used money?
2. Where was the first money used?
3. What were some things people in the past used as money?
- ✓4. How do these and others compare to the value of U.S. money shekel, krona, shilling and a pound?
- ✓5. What is the most unusual coin made?
6. What metals are used for coins?
7. What else is used to make coins?
8. What sizes are the coins?
9. When did they start using coins and who used them?
10. How have coins changed?

Thank you for your time and effort,

Yours Truly

Marisa Holguin

Marisa Holguin



OFFICE OF
SUPERINTENDENT

THE DEPARTMENT OF THE TREASURY

UNITED STATES MINT

DENVER, COLO. 80204-2693

January 4, 1989

Ms. Marisa Holguin
2023 Hepler Road
Carlsbad, NM 88220

Dear Ms. Holguin:

After a review of the information available at the U.S. Mint at Denver, we have been able to answer the following questions:

1. How did people obtain things they needed before they used money?

Bartering was the first medium of exchange. It was a system in which our ancestors matched their wants with the needs of others and exchanged goods.

2. Where was the first money used?

Archaeologists have found that over 12,000 years ago, European and Asian tribes met in the Ural mountains and exchanged goods. It is also alleged that the Chinese circulated a square bronze coin as early as 1120 B.C. The Lyndians in West Turkey cast the earliest known coin around 800 B.C.

American money began when the early settlers in New England carried on their fur trade with the Indians. They used wampum or mussel shells in the form of beads, beaver skins, and tobacco to exchange for all available commodities. The first money minted in the United States was in Massachusetts by John Hall in 1612.

3. What were some things people in the past used as money?

Some early forms of money included: shells, beads, furs, tobacco, salt, iron nails, shark teeth, and domesticated animals, such as cattle.

- 4 & 5. How do these and others compare to the value of United States money--shekel, krona, shilling, and a pound? What is the most unusual coin made?

We are unable to respond to these questions. You may want to contact the American Numismatic Association, 818 North Cascade Avenue, Colorado Springs, CO, 80903-3279, for this information.

6. What metals are used for coins?

Metals used for coins include: copper, zinc, nickel, gold, and silver.

Penny:	97.5% zinc, 2.5% copper
Dime:	75% copper, 25% nickel
Nickel:	75% copper, 25% nickel
Quarter:	75% copper, 25% nickel
Half Dollar:	75% copper, 25% nickel

Silver and gold are used for commemorative coins.

7. What else is used to make coins?

Please refer to the enclosed brochure.

8. What sizes are the coins?

Coins may be produced in any size. American coin sizes are as follows:

Penny:	Diameter 19mm
Dime:	Diameter 17.9 mm
Nickel:	Diameter 21.2mm
Quarter:	Diameter 24.3mm
Half Dollar	Diameter 30.6mm

9. When did they start using coins and who used them?

Refer to question #2.

10. How have coins changed?

Over the years, coins have changed in value, design, and composition of metals, mainly due to economic conditions.

NOTE: The following sources were used in providing the above information:

- 1) Editors of Coin World, Coin World Almanac (New York: Amos Press, Inc., 1987).
- 2) Edited by George G. Evans, History of the U.S. Mint and Coinage (Philadelphia: George G. Evans, 1893).
- 3) D.H. Friedman and C.J. Parnow, The Story of Money (New York: Federal Reserve Bank of New York, 1984).

- 4) R.S. Yeoman, A Guide Book of United States Coins (Racine, Wisconsin:
Western Publishing Company, Inc., 1987).

Sincerely,

Tito E. Rael, Chief
Exhibits and Public Sales

Enclosure

KAS/ks



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

FUN FACTS ABOUT DOLLARS

The Treasurer, Katherine Ortega's, signature appeared on 5,800,000,000 notes with a value in excess of \$59,600,000.00 in her first year of office.

To give you an idea of how much money 5.8 billion notes is : if you had 5.8 billion \$1 notes and spent \$1 every second, it would take you almost 184 years to go broke!

95% of the notes printed each year are used to replace notes already in circulation. 48% of the notes printed are \$1 notes.

The average life of a Federal Reserve Note depends on its denomination, as follows:

\$1	18 Months
\$5	2 Years
\$10	3 Years
\$20	4 Years
\$50	5 years
\$100	9 Years

A stack of currency one mile high would contain 14,734,884 notes. There are about 490 notes in a pound and about 233 new notes (not compressed) to an inch.

Each currency note is 2.61 inches x 6.14 inches long and the thickness is .0043 inch. If each currency note to be printed in 1989 were laid end to end, they would stretch around the earth's equator approximately 22 1/2 times.

Since 1969, the 100 bill is the largest denomination printed and the comprise only 2% of the Bureau currency production.

The larger denomination of currency ever printed was the \$100,000 Gold Certificate of 1934. It was designed for official interbank transactions and none of these notes ever circulated outside of the Federal Reserve System. The largest denomination note printed for circulation was the \$10,000 note.

United States currency has been changed the least of any major currency in the world. The last significant change was a change in size in 1929.

U.S. currency is the only one of the world's major currencies which is printed in only two colors.

In 1982, the Denver Mint bought and installed a solid state variable frequency induction melting system. Induction melting differs from systems that derive their heat from the combustion of gas, oil, or solid fuels. The heat developed by induction is developed within the charge or melt; it is not applied from outside.

The following are temperatures at which various metals are melted at the Denver Mint:

Copper Plated Zinc Cent (CPZ) 850° - 900° F.

Bronze Cent (Copper) 2,200° F.

8 1/3 (% Nickel) Dime, Quarter, Half Dollar - 2,400° F.

Nickel - 2,800° F.

Stamping Dies - 3,000° F.

Dollar Points



Federal Reserve Bank of Boston

Dollar Points

Did you ever stop to think "What is a dollar?" It's more than a piece of paper printed with green and black ink. It's money — it's money because it serves us in three ways.

It is a medium of exchange — we can and do use dollar bills to buy things we need and want because dollars are designated as legal tender.

It is a standard of value — things we buy and sell are valued in terms of a dollar.

And it serves as a store of value — we can work now and save the value of that work by saving dollars.

1 The United States Government authorizes paper money — currency — of certain denominations and in some cases certain amounts. The authorized currency is legal tender. Basically, this means creditors may not refuse this money in payment for any debt expressed in terms of that money — assuring the United States of a single, reliable medium through which transactions can be conducted. However, this does not mean that a merchant must accept a dollar bill. If he feels the bill is counterfeit, for example, he may demand some other form of payment.

The dollar was first adopted as our unit of money in 1785. In 1792, the first dollar was issued, but it was not a dollar bill as we know it — it was a coin. The first paper money issued by the Government was not authorized until 1861. The physical characteristics of our money have been changed many times since then. Paper money currently in circulation is printed by the Bureau of Engraving and Printing, part of the Treasury Department, in Washington, D.C.

OTHER POINTS OF INTEREST ...

Did you know ... that more than half of a dollar bill is considered legal tender?

And only the front of a dollar bill is valuable? If you were able to separate the front of a bill from the back, only the front half would be considered "money."

And until 1929 our currency measured 7.42 x 3.13 inches. Since then, currency has measured 6.14 x 2.61 inches — an easier size to handle and store.

Today's Currency

FEDERAL RESERVE NOTES...

2

Most of our currency — over 99 percent — is Federal Reserve Notes. The Government has authorized the twelve Federal Reserve Banks to issue notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50, and \$100. Before 1945, notes were also printed in denominations of \$500, \$1000, \$5000, and \$10,000. These notes of larger denominations were issued until 1969. At that time, they were discontinued since there was little demand for them. After all, it is easier and safer to write a check for \$5000 than to use a \$5000 bill.

3

Take a look at a dollar bill — it probably is a Federal Reserve Note. To the left of the portrait is a seal of the Federal Reserve Bank which issued that note. The seal bears the name and the code letter of that Bank. Which Federal Reserve Bank issued your currency?

4

To the right of the portrait is the Treasury seal which is overprinted on the face of each note. This seal and the serial numbers are printed in green.

OTHER TYPES OF CURRENCY...

Many other types of currency have been issued over the years. Regardless of when it was first issued, all currency authorized by the United States Government is still legal tender.

U. S. Notes were first issued during the Civil War. These notes were commonly referred to as "greenbacks." Today, about \$323 million of U.S. Notes are still outstanding, mostly in \$100, \$5 and \$2 denominations. By law, the Treasury must keep the amount of U.S. Notes outstanding at about \$323 million.

National bank notes were issued by national banks until 1935. Gold Certificates, currency which could be exchanged for gold, were issued until 1934. At that time most of these certificates were removed from circulation. Those still in circulation are legal tender, but they are not redeemable for gold.

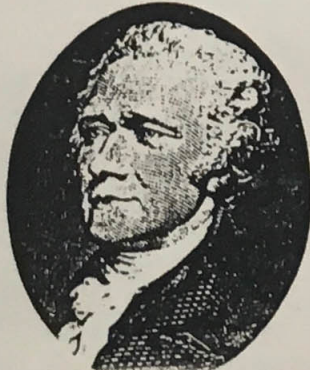
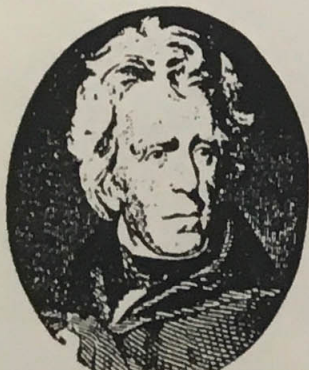
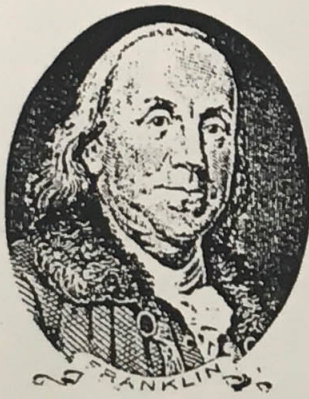
Silver Certificates were issued until 1957. One dollar denomination Silver Certificates made up most of the \$1 bills until the first \$1 Federal Reserve Notes were issued in 1963. Silver Certificates could be converted to silver until 1968. This was terminated because the Treasury's stockpile of silver was being depleted as people converted their Certificates into silver, hoping that the price of the metal would continue to rise.

Designs On The Dollar

8

The portraits on our paper money are those of deceased American statesmen. On the reverse side are famous buildings, monuments and ornate numerals. The uniform back designs were adopted in 1929. Portraits and emblems presently on our currency are as follows:

Denominations	Portrait	Emblem
\$1	Washington	Great Seal of the U.S.
2	Jefferson	Signing of Declaration of Independence
5	Lincoln	Lincoln Memorial
10	Hamilton	U.S. Treasury Building
20	Jackson	White House
50	Grant	U.S. Capitol
100	Franklin	Independence Hall
500	McKinley	Ornate 500
1000	Cleveland	Ornate 1000
5000	Madison	Ornate 5000
10,000	Chase	Ornate 10,000



The Great Seal of the United States, adopted in 1782, appears on the back of the one dollar bill. The front of the seal shows an American bald eagle behind our national shield. The eagle holds an olive branch — symbolizing peace — with 13 berries and 13 leaves. In the left talon, the eagle holds 13 arrows — symbolizing war. The 13 units represent the original colonies. The eagle's head is turned toward the olive branch showing a desire for peace.

The top of the shield represents the Congress, the head of the eagle represents the Executive branch, and the nine tail feathers represent the Judiciary branch of our Government. The motto, *E Pluribus Unum*, on the ribbon held in the eagle's beak, means "Out of Many, One."

On the reverse of the seal is a pyramid with 1776 in Roman numerals at the base. The pyramid stands for permanence and strength. The pyramid is unfinished, signifying the United States' future growth and goal of perfection. A sunburst and an eye are above the pyramid standing for the Deity. The 13 letter motto, *Annuuit Coeptis*, means "He Has Favored Our Undertakings." Below the pyramid the motto, *Novus Ordo Seclorum*, means "A New Order of the Ages," standing for the new American era.

The most recent major change in the design of our currency was the addition of the inscription, "In God We Trust." The motto first appeared on a U.S. coin in 1864. However, it was not until 1955 that a law was passed which stated that thereafter all new designs for coin and currency would bear the inscription.

FEDERAL RESERVE BANKS AND CODE LETTERS

1	Boston	A	7	Chicago	G
2	New York	B	8	St. Louis	H
3	Philadelphia	C	9	Minneapolis	I
4	Cleveland	D	10	Kansas City	J
5	Richmond	E	11	Dallas	K
6	Atlanta	F	12	San Francisco	L

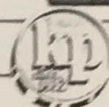
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\$1.2

No-mint-mark quarter authenticated

By Burnett Anderson
Washington Bureau

A 1989 Washington quarter without a mint mark has been authenticated and tentatively determined by U.S. Mint authorities to be the result of a weak strike by a coin press.

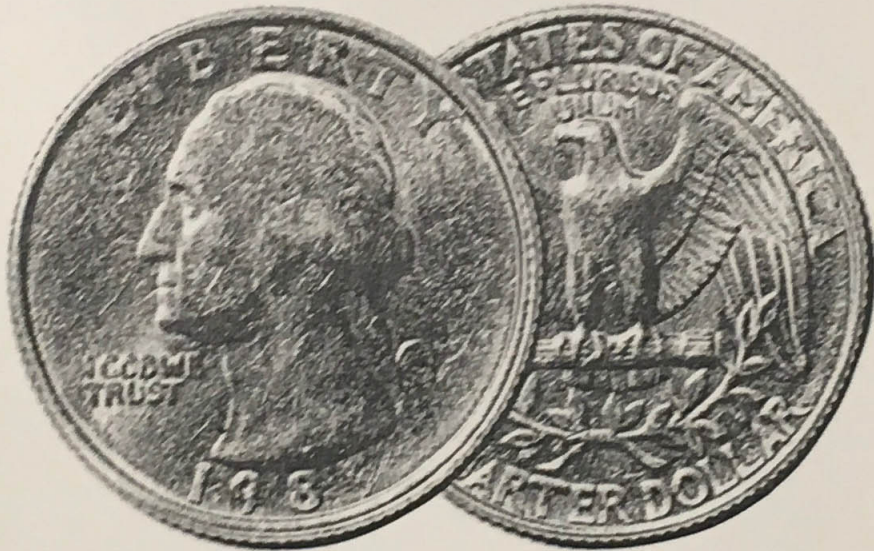
The analysis was conducted by George Hunter, assistant director of the Mint for technology, with Andrew Cogarea, assistant director for production, joining in the examination.

Even under strong microscopic magnification, confirmed by electroscopic inspection, there was no discernible evidence of a mint mark.

The coin in question was discovered by Gabe Daher, a Boston area collector, and sent to *Numismatic News* for evaluation. It was shipped by overnight service to the *News* Washington Bureau, and delivered promptly to U.S. Mint headquarters near the capitol.

Given the region where it was discovered, New England, the Philadelphia Mint is the probable source of the coin. Daher pointed out, however, that some 1989 "D" marked pieces are in circulation in his area.

At about the same time that the Mint



Officials at the U.S. Mint have expressed their opinion that a recently discovered no-mint-mark 1989 quarter is genuine. The cause of the missing mint mark has yet to be determined.

was pursuing its analysis, a stationery store proprietor in Westchester County, N.Y. telephoned the *Numismatic News* offices to report he had found a full roll

and an additional half roll of 1989 quarters with no mint mark. That report has not been confirmed.

At the Mint, Hunter said there were a

number of indications pointing to weakness of strike of the discovery coin as the cause for the missing "P" or "D."

The answer is important to collectors. If the missing mark is finally confirmed as simply an aberrational weak strike with only one or a few coins involved, it will presumably be classified as an error coin, and valued as such.

If, however, the mint mark had been inadvertently left off the die or somehow plugged as a variety, the coin could be entered into a category with the famous 1922 no-mint-mark Denver cent and the 1937-D three-legged Buffalo nickel.

After careful study under a microscope, Hunter and Cogarea agreed on various points of evidence that the strike was indeed a weak one.

The normal surface texture of the planchet has not been disturbed in the area of the field where the mint mark should come up if there had been sufficient pressure.

There is no evidence of flow lines in that area, again indicating that insufficient pressure was brought to bear to move the metal sufficiently to fill the die, including the mint mark.

(QUARTER, Page 28)

Strong demand expected at Long Beach

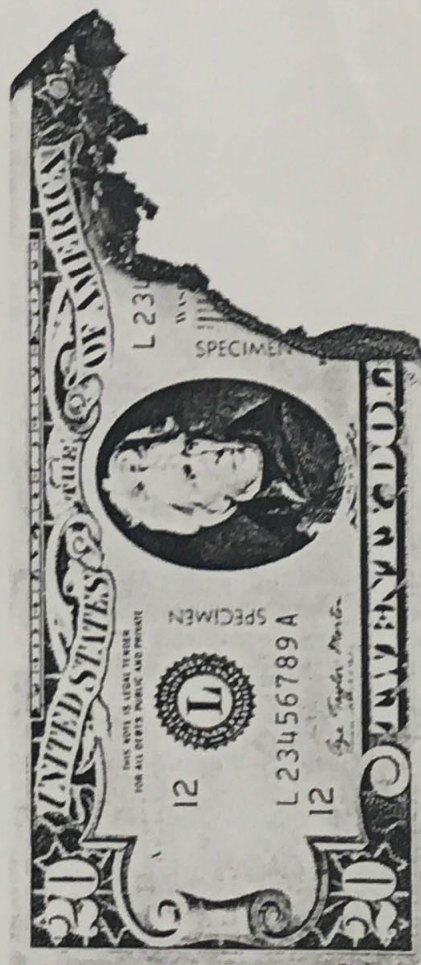
When Money Wears Out or is Damaged

Even though American money's unique paper is strong and durable, it does wear out with constant handling.

Banks send worn bills to the Treasury Department to be destroyed and exchanged for new ones. The denomination most commonly replaced is the \$1. There are almost two billion \$1 bills in circulation, and the life expectancy of each is only about 18 months. Since larger denominations are handled less, they last longer.

When a bill is scorched or otherwise partially destroyed, the Treasury Department will replace it if clearly more than half of the original note remains. Fragments of mutilated currency which are not clearly more than one half of the original whole note may be exchanged only if the Commissioner of the Bureau of Government Financial Operations is satisfied by the evidence presented that the missing portions have been totally destroyed.

Take unfit or mutilated bills to a bank for redemption. When partially destroyed currency is of questionable value, the fragment should be sent by registered mail to the Department of the Treasury, Bureau of Engraving and Printing, OCS/BEPA, Room 344, P.O. Box 37048, Washington, D.C. 20013.



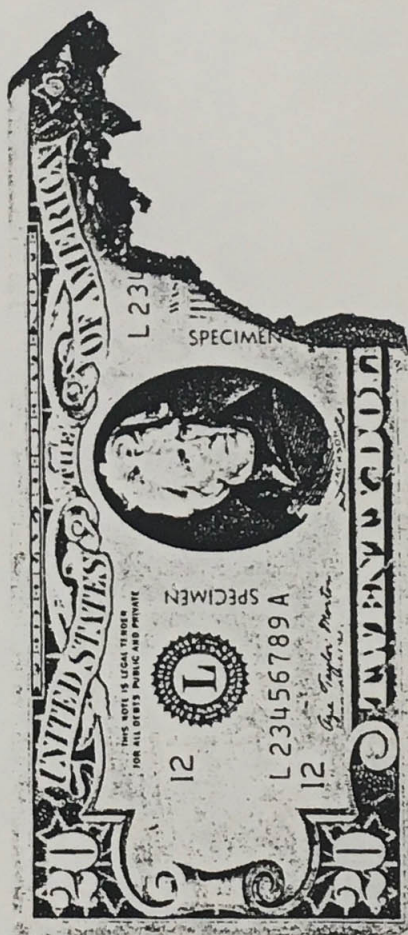
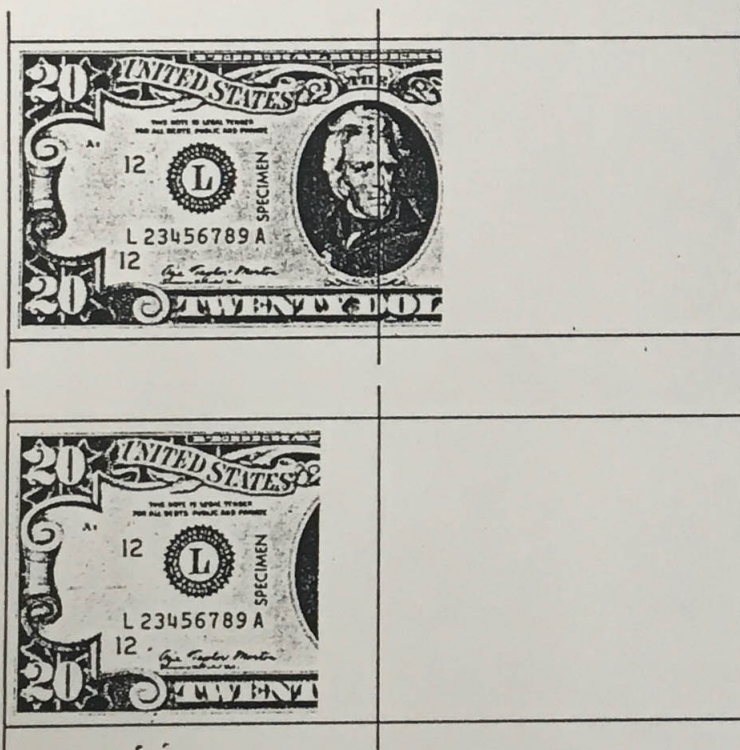
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THE BUREAU OF ENGRAVING AND PRINTING

The Bureau of Engraving and Printing is the world's largest securities manufacturing establishment. It employs 2,300 people and operates 24 hours a day. The Bureau designs, engraves, and prints United States paper currency; Treasury bonds, bills, notes, and certificates of indebtedness; United States postage, and revenue stamps; and miscellaneous engraved items for approximately 75 departments and independent agencies of the Federal Government, and its insular possessions. White House invitations, commissions, diplomas, certificates, identification cards, and liquor strip stamps, are some of the approximately 700 miscellaneous products printed by the Bureau.

Operations of the century-old Bureau of Engraving and Printing are housed in two specially constructed buildings with a combined floor space of approximately 25 acres.

CURRENCY

The principal product of the Bureau is United States paper currency. A face value of over \$66 million is printed annually, averaging approximately 23 million notes a day.

The currency notes printed are Federal Reserve notes, which are issued in denominations of \$1, \$2, \$5, \$10, \$20, \$50, and \$100. They are primarily used to replace worn or mutilated currency taken out of circulation. The following is a listing of the portraits and back designs of paper currency now being produced and issued:

Denom.	Portrait	Back
\$1	Washington	Obverse and Reverse of Great Seal of U.S.
\$2	Jefferson	Signing of the Declaration of Independence.
\$5	Lincoln	Lincoln Memorial
\$10	Hamilton	U.S. Treasury Building
\$20	Jackson	White House
\$50	Grant	U.S Capitol
\$100	Franklin	Independence Hall

Federal Reserve notes is the only class now being printed. Printing of Federal Reserve Bank notes, Gold Certificates, and Silver Certificates, has been discontinued. Some notes from each of these classes are still in public circulation.

The largest denomination of currency ever printed was the \$100,000 Gold Certificate of 1934 which featured the portrait of President Wilson. This note was designed for official transactions only and none of these notes ever circulated outside Federal Reserve banks. In addition to the denominations now in use, higher denomination notes were issued prior to 1969. They were the \$500 note with a portrait of McKinley on its face, the \$1000 note with a portrait of Cleveland on its face, the \$5000 note with a portrait of Madison on its face, and a \$10,000 note with a portrait of Chase on its face. All of these notes have ornate back designs featuring the denomination. In 1969, a decision was made that no currency notes larger than \$100 would be printed. All larger denominations are retired when returned from circulation.

The \$2 Federal Reserve Note was issued on April 13, 1976 as the latest permanent addition to the denominations of U.S. currency.

INTAGLIO ENGRAVED PROCESS

To assure the best protection against counterfeiting, all United States paper money, as well as nearly all postage stamps and other evidences of a financial character issued by the United States Government, are printed by the "intaglio" process from engraved plates.

Intaglio-printed documents are the most difficult to produce or to counterfeit. Other processes lack the fidelity of fine lines and the distinctive third-dimensional effect of raised line on paper inherent in intaglio printing. An outstanding element of protection is the portrait. The use of portraits in security designs takes full advantage of the characteristics of intaglio printing since even a slight alteration in breadth, spacing, or depth of line on the part of a counterfeiter will cause a perceptible facial change. The portraits used in the designs of securities those of persons of historical importance. By law, no portrait of a living person may be used.

In the intaglio process, the individual features of a chosen design are hand-tooled by highly skilled engravers who engrave in varying depths into steel with delicate steel-cutting instruments called gravers. With infinite care, each feature, such as the portrait, the vignette, the numerals, the lettering, the script, and the scroll work is hand-engraved by different master craftsman expertly trained in his own particular skill.

CURRENCY MANUFACTURE

The Bureau prints all currency by the line-engraved process on high-speed sheet-fed rotary presses. The most modern presses use four plates of 32 notes (or subjects) each and are capable of printing 9,000 sheets per hour. Each sheet is forced, under extremely heavy pressure, into the fine engraved lines of a plate to pick up the ink.

The backs of the notes are printed with green ink on one day, and the faces are printed with black ink the following day.

The use of a special formula fast-drying non-offset ink, developed in the Bureau's laboratories, has eliminated the time-consuming need for tissing or interleaving between sheets. The inks and distinctive paper used by the Bureau in the manufacture of currency are produced under specifications designed to deter counterfeiting and to assure a high-quality product.

After the printing operation, each stack of 32-subject sheets is cut into 16-subject size and examined for defects in preparation for numbering and processing on currency overprinting and processing equipment (COPE).

CURRENCY OVERPRINTING AND PROCESSING EQUIPMENT (COPE)

The final printing operation for paper currency consists of overprinting the Treasury Seal, serial numbers, and the appropriate Federal Reserve district seal and number. This is accomplished on the most modern and automated currency overprinting and processing equipment in the world. The equipment, referred to by the acronym "COPE," performs several operations. COPE overprints the 16-note sheets, accumulates them into units of 100 sheets, and conveys them to cutting knives. The sheets are cut into two-note units and then into individual notes. Units of 100 notes each are banded and packaged into "bricks" containing 40 units. Each "brick" contains 4,000 notes and weighs approximately 8 1/2 pounds.

After the COPE operations and a final examination, the "bricks" are compressed and banded. The "bricks" are then plastic shrink-wrapped and placed in pouches for shipment to one of 12 Federal Reserve districts.

STAR NOTES

In the event a finished note is found to be imperfect after it has been overprinted, it is replaced with a "star" note. In design, star notes are exactly like the notes they replace, but they carry an independent series of serial numbers. The star appears after the serial number in place of the suffix letter on Federal Reserve notes. The serial number of the imperfect note which was replaced is not used again in the same numbering sequence.

MISCELLANEOUS INFORMATION

The life of the \$1 note is about 18 months. Higher denominations remain in circulation longer since they are not used in transactions as frequently as the \$1 note. The size of a currency note is approximately 2.61 inches x 6.14 inches and the thickness is .0043 inch. There are 233 new notes to an inch (not compressed) and 490 to a pound. A million notes weigh approximately a ton and occupy approximately 42 cubic feet of space (with moderate pressure).

POSTAGE STAMPS

Since 1894, the Bureau of Engraving and Printing has been continuously producing postage stamps of the highest quality for the United States Postal Service. The Bureau produces and delivers approximately 36 billion postage stamps to over 5,500 separate post offices in the United States.

CLASSES

United States postage stamps are divided into six classes: regular, international airmail, special, postage due, memorial, and commemorative. They are issued in denominations ranging from 1 cent to \$5. "Regular" postage stamps refer to the series of stamps that are kept in constant supply at the post offices. These stamps are often designated by a name such as the "Americana Series" of 1975, "Prominent Americans Series" of 1965, the "Liberty Series" of 1954, and the "Presidential Series" of 1938. "Special" refers to stamps used to prepay fees for special services other than regular postage, such as special delivery, or to provide for special seasons, such as Christmas. "Memorial" stamps honor American statesmen (usually Presidents) who die in office. "Commemorative" stamps honor great people, anniversaries, expositions, and historical events and are issued in limited quantities.

SIGNIFICANT PROGRESS CONTINUES

The Bureau of Engraving and Printing has developed international recognition for advancing the state-of-the-art in the technical designing, engraving, and printing of securities and miscellaneous items for the United States Government. In guiding its program of modernization, the Bureau continues to look for new technological improvements to enhance and safeguard its products-particularly paper currency and postage stamps-which are among the finest and most cost-effectively manufactured national securities in the world.

BRIEF HISTORY OF THE BUREAU OF ENGRAVING AND PRINTING

The beginning of an establishment for the engraving and printing of United States currency can be traced as far back as August 29, 1862 to a single room in the basement of the main Treasury building where four women and two men began to separate and seal \$1 and \$2 United States notes which had been printed by private bank note companies. These functions were later embodied in what was known as the First Division of the National Currency Bureau. The printing of currency notes by Treasury employees commenced in the fall of 1863 and in 1864 it was recommended to the Secretary of the Treasury that "The Engraving and Printing Bureau of the Treasury Department" be established.

The proposal was not accepted at that time, however, and the existence of a printing bureau as a distinct entity within the Treasury Department was not recognized by Congressional legislation until the passage of the Appropriation Act of March 3, 1869. As the years progressed the "Engraving and Printing Bureau" gradually absorbed the functions performed by the private bank note companies and by October 1, 1877 all United States currency was printed in this bureau.

CURRENCY CHANGES - SERIES 1967

March 18, 1966 U.S. currency underwent its first major design change in fifty years. The change was brought about due to the ability of new and sophisticated copying machines to reproduce our currency.

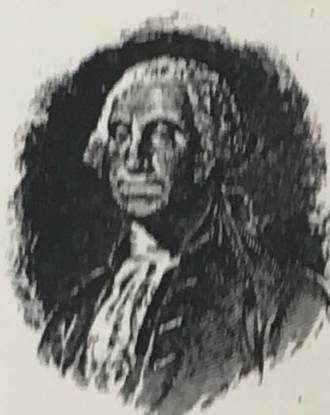
A clear polyester thread is woven into the surface of the paper in the manufacturing stage. This thread appears vertically across the face of the note, between the seal and the portrait on the One Dollar Bill. On the other denominations, it appears between the seal and the edge of the bill. The thread has "USA" and the denomination repeated along its length and is visible when held up to a light. It is spelled out on the One, Five and the Ten Dollar Bill, it is expressed numerically on the Fifty and the One Hundred Dollar Bill. For example, on the One Dollar Bill, it appears as "USA ONE." On the Fifty Dollar Bill, "USA 50."

Additionally, "UNITED STATES OF AMERICA" is repeated continuously in microprint around the portrait in letters so small that they can only be seen with 7x magnification and can not be copied by present copying techniques. These letters are engraved by hand and are printed at the same time as the rest of the note.

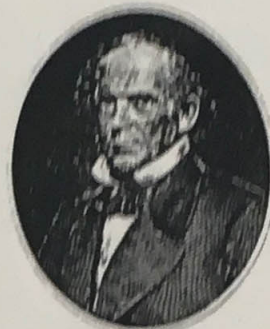
MEN IN CURRENCY



WILLIAM MCKINLEY
\$800



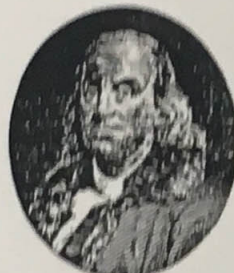
GEORGE WASHINGTON
\$1



SALMON P. CHASE
\$10,000



GROVER CLEVELAND
\$1,000



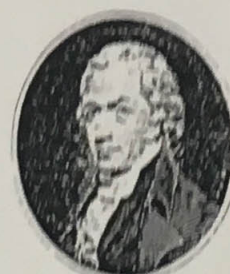
BENJAMIN FRANKLIN
\$100



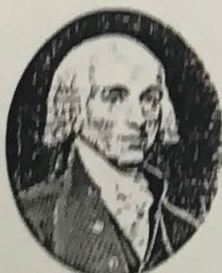
ULYSSES S. GRANT
\$80



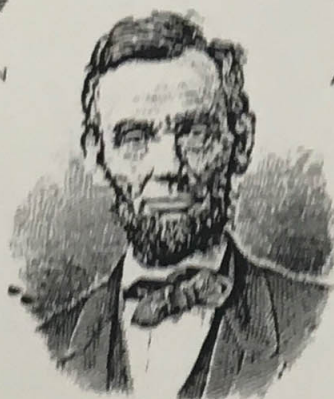
THOMAS JEFFERSON
\$2



ALEXANDER HAMILTON
\$10



JAMES MADISON
\$5,000



ABRAHAM LINCOLN
\$5



ANDREW JACKSON
\$20

SELECTIONS OF DESIGNS FOR UNITED STATES PAPER CURRENCY

The Secretary of the Treasury is responsible for the selection of the designs, including the portrait, authorized for paper currency, as provided by an Act of Congress of July 11, 1862: "That the Secretary of the Treasury be, and is hereby authorized, in case he shall think it expedient to procure said notes, or any part thereof, to be engraved, printed, and executed, in such form as he shall prescribe, at the Treasury Department in Washington, and under his direction; and he is hereby empowered to purchase and provide all machinery and materials, and to employ such persons and appoint such officers as may be necessary for this purpose." However, he obtains the opinions of other Treasury officials, the Director of the Bureau of Engraving and Printing, and occasionally the President of the United States, before making a final determination on new or revised currency designs. In addition to selecting the final designs, the Secretary also approves the final models prepared by the Bureau of Engraving and Printing for all issues of paper currency.

The portraits currently appearing on the various denominations of paper currency were adopted in 1928 when the size of the notes was reduced to the present small size. Prior to the adoption of the small size currency a special committee was appointed by the Secretary of the Treasury to study this aspect of the design and it was determined that portraits of Presidents of the United States have a more permanent familiarity in the minds of the public than any other and hence all portraits used on the notes should be those of Presidents. However, this decision was altered by the Secretary of the Treasury to include Alexander Hamilton, who was the Secretary of the Treasury; Salmon P. Chase, who was Secretary during the Civil War and who is credited with promoting our National Banking System; and Benjamin Franklin, who was one of the signers of the Declaration of Independence, because all three of these statesmen were well known to the American public. Records do not reveal the reason that portraits of certain statesmen were chosen in preference to those of other persons of equal importance and prominence.

ENGRAVERS AND ENGRAVING

Most people see and use paper money every day of their lives yet do not know of the great skill and individual artistry that go into each engraving for each denomination of paper currency.

Banknote engraving is a complex and intricate art. The engravers at the Bureau of Engraving and Printing in Washington, D.C., are people who have displayed artistic talent throughout their lives and who have studied their craft for many, many years; they are the masters of the delicate carvings and etchings we see every day on our paper currency.

An engraved vignette, like that which we see on our currency bills, is a series of lines, dashes and dots, combined together in the banknote style, that forms a complete picture such as a person or landscape. The engraving model may originate from a drawing, painting or photograph, and is usually prepared five times larger than the desired size of the actual engraving. When the model is completed it is reduced photographically to the correct size the vignette is supposed to be. The picture engraver then puts a sheet of acetate, which looks like a clear thin piece of hard plastic, on top of the reduced model and with a sharp steel-tipped point, makes a drawing of the entire picture.

When the drawing is completed, the engraver makes a hard wax transfer by rolling a wax ball over the engraved acetate, thus coating its surface with a thin film of wax. The acetate is then flipped over and positioned on a piece of polished steel, wax side down. When a burnisher is rubbed over the acetate the wax is transferred to the steel die. A weak solution of acid and water is put over the die which stains any exposed metal; when the wax is cleared off, the drawing is stained onto the piece of steel. This stain drawing serves as a guide for engraving.

The actual engraving of the die includes covering the entire model picture with the dots and dashes indigenous to the banknote engraving technique. The markings may go in any direction - it is up to the discretion of the engraver - and may be of varying depth, width, and spacing. The lighter tones of an engraving, such as a flesh tone, are achieved by using widely spaced lines or dots; darker tones, through heavier and closer spacing. The whole purpose is to create a complex design of lines engraved in such a way to create a three dimensional image, like a portrait. The use of heavy and light lines builds security into the vignette.

The engraver must have extensive knowledge of this art, the patience to endure the tedious execution of engraving, and the manual dexterity necessary to record precise, minute details, such as those found in portraits. One example of the precision found in the Bureau's engravings can be illustrated in the following true anecdote.

The Bureau offers, among many other miscellaneous products, engraved portraits of all the United States presidents. When Franklin D. Roosevelt was elected to office, one of the Bureau's top engravers, John Eissler, was assigned to engrave the President's portrait.

A graver is a hand-size hard steel instrument with a sharp point. Gravers come in different sizes and shapes; the point can be wide or slim, flat or pointed, depending upon which effect the engraver wishes to accomplish. The two basic shapes of a graver are square and lozenge (diamond-shaped).

The burnisher is a slim steel instrument, pencil shaped, with a pointed but rounded tip. A burnisher is used to correct scratches or nicks in the die by gently rubbing (burnishing) the soft steel and moving it into correct position, such as filling in a scratch.

An engraver's glass is one of the most individually important tools of an engraver. A "glass" is a small magnifying lens about the size of an eyeglass lens. Engravers use lenses that suit each individual need: some work requires an extremely powerful lens because the engraving is minute and hair-thin. Other work necessitates the use of both hands and in this case a "loop" is used. A loop is a lens with a curved metal wire attached that can fit snugly around an engraver's head, leaving his hands free.

A ruling machine is another engraving tool. A precision device with a diamond point, the ruling machine is used for scribing straight lines into a steel die. The machine operates through a "push-pull" power supplied by the operator himself, and can deliver a single straight line like those we see on the outside border of our currency notes. It can also be used to cover large or small areas with straight parallel lines with any desired interval pre-set. A good example of this would be the lines which form the backgrounds for portraits on U.S. currency; close inspection reveals a grid of horizontal and vertical lines. Each line was scribed through the acid proof "ground" one at a time, first in one direction and then in the other. Acid was applied and all lines etched in one operation. Since the "ground" of the die is protected by the asphaltum film, the acid bites into the exposed engraved lines and makes them clear and sharp.

Both picture engraving and letter engraving require strong artistic talent, attention to exquisite detail and patience. The basic difference lies in the fact that picture engraving allows more freedom of design. After receiving a picture of what is to be engraved, the picture engraver decides which techniques, instruments, and spacing are most suited to the job. It is entirely his decision which direction to engrave lines, how many, how widely spaced, and how deep. The engraver carefully plans the lines of his design and does not begin to cut until his plan is correct. After the initial cut is made, he goes through a period of development where the subtle color relationships are strengthened. By contrast, the letter engraver has a rigid set of rules regarding the spacing of lines and curves. Engraved numerals and letters in banknotes have precise requirements that necessitate exact measurement; the tiniest of errors is easily recognizable.

The Engraving Division has undergone very few changes since its origin in October of 1862. The skills of these master craftspeople, their tools and abilities have remained virtually unchanged. The only difference in technique is that engravers do not cut as deeply into the steel dies as they did formerly. This is to enhance the fast-drying time

of the Bureau's modern presses. Shallower engravings allow the water-based inks to dry much more quickly than the deeper engravings with the oil-based inks of yesteryear.

One other change is not in the engraving technique, but in the type of steel used. Today, the steel is harder, a little less malleable. The steel used formerly was imported from England and, in the words of one engraver, "it cut like butter".

The engravers of the Bureau continue in the tradition and expertise of their predecessors: quality first and always. Today, the Bureau of Engraving and Printing exhibits the same excellent craftsmanship and unique artistry that has endured throughout its 125-year history.

Bureau of Engraving and Printing

Expanded Use of the Motto "In God We Trust" in United States Currency

Public Law 140 of the 84th Congress, approved July 11, 1955, provides "That at such time as new dies for the printing of currency are adopted in connection with the current program of the Treasury Department to increase the capacity of presses utilized by the Bureau of Engraving and Printing, the dies shall bear, at such place or places thereon as the Secretary of the Treasury may determine to be appropriate, the inscription "In God We Trust", and thereafter this inscription shall appear on all United States currency and coins." In recognition of the enormous expenditure of funds associated with the replacement of costly printing plates which were still serviceable, this law provided that the use of this inscription would be expanded only as new dies were adopted.

As a part of this bureau's comprehensive program of modernization, new high-speed rotary intaglio presses of special design were successfully developed and installed in the Bureau of Engraving and Printing in 1957. Conversion of approximately half of the currency production operations to the new press equipment, with its critical requirements for the development and manufacture of many printing plates of an entirely different construction, placed urgent demands on the Bureau's engraving and plate making facilities for a period of several years. Also, the changes to these new plates left an abnormally large stock of older-type plates for printing \$1 silver certificates. This was noted in a survey conducted by the Bureau in 1957 when it was estimated that a five-year supply of plates was available to print \$1 silver certificates on the old-design currency presses.

In 1957, the first \$1 silver certificates bearing the motto "In God We Trust" were printed on new high-speed rotary intaglio press equipment. Since that time its use has been expanded and at the present time more than 80% of all \$1 silver certificates being printed bear the motto. This represents approximately one-half of the 1,600,000,000 notes produced by the Bureau during the past fiscal year. About 3,000,000,000 notes bearing this motto have been delivered since 1957 and this number continues to increase progressively. In view of the intricacies and complexities involved in the very specialized methods required to produce currency at the highest standard of quality and security, significant progress has already been made in the use of the motto.

A current survey now indicates that it will be both timely and economical to proceed with the engravings for new back plates which will further extend the printing of the motto to all \$1 silver certificates. It is estimated that this will be accomplished within a year.

This bureau will continue to comply fully with the spirit and intent of Public Law 140 and other denominations will be printed with the motto "In God We Trust" as soon as it is economically feasible to do so.

HISTORY OF THE GREAT SEAL
of
THE UNITED STATES

Charles Thompson, Secretary of Congress, was given the job of compiling designs for the seal. Three different committees were assigned by Congress to the task with the three giving Thompson their ideas. He selected features of the designs, wrote a description, and sent it to William Barton of Philadelphia, who was an expert on heraldry. Barton approved Thompson's reverse but modified the obverse. The designs were presented to Congress on June 20, 1782, and accepted the same day. The eye represents the Deity and the unfinished pyramid the unfinished country. Thompson added the mottos above the two features which can now be found on the reverse of all \$1 Federal Reserve Notes.

A ribbon flying from the beak of the eagle is inscribed with the Latin motto, E Pluribus Unum, translated--One out of many (in reference to the unity of the 13 colonies).

The reverse seal depicts a pyramid with 1776, the year of the Declaration of Independence and the Roman numerals MDCCLXXVI on its base. The pyramid represents permanence and strength. Its unfinished condition symbolizes that there was still work to be done to form a more perfect Government and signifies the expectation of still work to be done to form a more perfect union. The eye in the triangular glory represents an all-seeing Deity. The words, "Annuit Coeptis," translates as, "He (God) has favored our undertaking" and refers to the many interpositions of Divine Providence in the forming of our Government. NOVVS ORDO-SECLORUM translates, "A new order of the ages," and signifies a New Americana.



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

DIFFERENCE BETWEEN UNITED STATES NOTES AND FEDERAL RESERVE NOTES

United States Notes, originally issued in 1862, were the first National currency. Federal Reserve Notes were not issued until the creation of the Federal Reserve System in 1913. Both types were redeemable for gold until 1933, when the United States abandoned the gold standard. Since then, both currencies have served essentially the same purpose and have had the same value. The differences between them are legalistic ones relating to the technical accounting issue of whose liability each type of note is -- the United States Treasury's or the Federal Reserve system's.

The Federal Reserve System has the responsibility for maintaining growth and elasticity in the United States money supply in response to economic conditions, and it uses Federal Reserve Notes for the active currency part of the money supply. Currently, 99.7% of all United States currency in circulation -- or about \$122 billion -- is Federal Reserve Notes. The Federal Reserve System "backs" this liability at its face value primarily with open market purchases of United States Treasury securities, and the interest earned on these is deposited back in the United States Treasury along with all other Federal Reserve System revenues which exceed its operating costs. United States Notes were "backed" by financial assets of the United States Government, including its ability to collect revenues. Therefore, it can be said that both Federal Reserve Notes and United States Notes are backed by the full faith and credit of the United States Government.

The Department of the Treasury has requested Congress to enact legislation to cease issuance of United States Notes on the basis that they are an anachronism and serve no function that is not already adequately being served by Federal Reserve Notes. Pending the enactment of this legislation, the Treasury has not actually placed any of the more recently produced notes -- last delivered to Treasury, January 21, 1971 -- into circulation.

THE GREEN IN "GREENBACKS"

The reason for the selection of green as the color for the backs of currency notes has long been among the more popular questions put to the Bureau. It is known that at the time of the introduction of small-sized notes in 1929, the use of green was continued because pigment of that color was readily available in large quantity, the color was relatively high in its resistance to chemical and physical changes, and green was psychologically identified with the strong and stable credit of the Government. But no definite explanation can be made for the original choice. In the course of preparing this history, much attention was given to the matter. Extensive research developed evidence in support of the following explanation.

With the growing popularity of banknotes and the development of photography in the mid-1800's, it was customary to print the bills in black combined with colored tints as a deterrent to counterfeiting. The early camera saw everything in black. Features that were distinguishable on a note by color variant lost their individuality when reproduced photographically. However, the counterfeiter soon discovered that the colored inks then in use could easily be removed from a note without disturbing the black ink. He could eradicate the colored portion, photograph the remainder, and then make a desired number of copies to be overprinted with an imitation of the colored parts. The solution to the problem lay in the development of an ink that could not be erased without adversely affecting the black coloring. Such an ink was developed and the patent rights were purchased by Tracy R. Edson, who later was one of the founders of the American Bank Note Company. This is one of the same firms that produced the first paper money issued by the United States. The faces of these and other early notes produced under contract were printed with a green tint, presumably of the protective ink.

It is not unusual in printing with oil-base-type inks, such as was the "patent green," for the color to strike through to the opposite side of a sheet. It might, therefore, be conjectured that the backs of the early notes were printed in a darker shade of ordinary green to make the tint "strike through" less obvious.

Since the transition of printing money exclusively at the Treasury was gradual, it is logical to presume that the backs of the notes produced there during the intervening period were printed in green for the sake of uniformity. Once the Bureau was on full-scale production, there was no reason to change the traditional color and the practice was continued.

—THE US— MINT AT DENVER

SUPERINTENDENT

BARBARA E. MCTURK

DIRECTOR

DONNA POPE



—THE US— MINT AT DENVER

SUPERINTENDENT
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Compiled and Edited
by Exhibits & Sales
Staff, U.S. Mint,
Denver, Colo.

January 1990

THE STORY OF MONEY (continued) .

The first counterfeiter of minted money is said to have been the Emperor Nero. Since his time counterfeiting has flourished in many nations. United States courts convict scores of persons on charges of counterfeiting yearly on evidence obtained by the Secret Service.

In the early days of our Nation, before United States money was issued, there were in circulation English shillings, French Louisdors, and Spanish doubloons, with other units of the money of those nations. This caused confusion and slowed up trade. The dollar was adopted by the Congress in 1785 as the unit of our money, and the decimal system as the method of reckoning. In 1792 the United States monetary system was established, and the United States Mint began coining money at Philadelphia. The first coins minted were handed to the President's wife, Martha Washington, by the Director of the Mint, David Rittenhouse. This ceremony took place in 1792; the day is not recorded. The coins were half-dimes made from household silver sent from Mount Vernon by President Washington. These half-dimes were not put in circulation. The issue was presented to President Washington by Act of Congress; he gave them to his friends as souvenirs. Besides half-dimes, the Congress authorized the issuance of the other metal units of our currency, to be minted from gold, silver, nickel, and copper.

Paper currency was used by our people even before the Declaration of Independence was signed. It was called Continental currency. Its value became so small that "Not worth a Continental" was a common saying. The plates for the first of this money was engraved in 1775 by Paul Revere, who made the famous midnight ride. Paper money also was used after the adoption of the Constitution in 1789. It was not Federal currency but bank notes. Before 1836 these notes were issued by two United States banks established by the Congress. The first bank was closed in 1811, the second in 1836. After 1836, the chief form of paper currency was notes issued by banks operating under charters from the States.

The present system of United States paper money began with the Civil War. Treasury notes were issued under the Act of July 17 and August 5, 1861. The National Bank Act of 1864 provided for national bank notes, issued with United States bonds as security; an amendment in 1908 permitted national bank notes on security other than United States Bonds. National bank notes have been in process of retirement since March 1935. Our paper currency took its final form with the adoption of the Federal Reserve Act, December 23, 1913. The first issue of Federal Reserve notes was made on November 16, 1914, with the opening of the Federal Reserve banks.

HOW COINS ARE MADE

United States coins begin in private industry where a number of companies produce the coinage blanks for the pennies and all coils of strip metal the Mint purchases. The Mint produced its own strip metal as late as 1982 at the Philadelphia Mint.

The coinage metals are assayed, melted and formed into slabs which are then rolled to the proper thickness. For clad coinage (silver-color coins), bonding operations are required to bond the two layers of copper-nickel to the core of pure copper. The strip is then coiled and shipped to the Mint for blanking.

Since 1982, the copper-plated zinc penny blanks have arrived at the Mint ready to be coined.

The blanking presses are simply punch presses similar to those found in any machine shop. They have a bank of punches (or rams) which move downward through the strip and into a steel plate which has holes that match the punches. The presses punch out blanks each time the punches make their downward cycle. The blanks made at this stage are slightly larger than the finished coins. Because of the shearing action of the punches, the blanks have rough edges. The rough edges (or burrs) are removed later in the process.

The blanks (also called flans or planchets) are next passed over sorting screens which eliminate the defective blanks. Thin and incomplete blanks will fall through the screens. These rejected blanks are remelted.

During the finish rolling and blanking press operations the blanks have been hardened and must now be softened. The blanks are placed into the Annealing Furnaces which have spiral grooved walls. As the cylinder in the furnace turns, the blanks are forced from one end to the other by the spirals. As they move along the cylinder walls, the planchets are heated to approximately 1400 degrees Fahrenheit, changing their crystal structure to a softer state. The blanks are then cooled and washed in water to keep them in their softened state. This annealing process prolongs the life of the coining dies by ensuring well-struck coins which require lower striking pressures.

METAL CONTENT OF CURRENT COINAGE:

Penny-----Core is 99.2% zinc, .8% copper, with a plating of pure copper, total content: 97.5% zinc, 2.5% copper.

Nickel-----75% copper, 25% nickel

Dime-----outer layers 75% copper, 25% nickel on pure copper core.

Quarter-----outer layers 75% copper, 25% nickel on pure copper core.

Half Dollar----outer layers 75% copper, 25% nickel on pure copper core.

TYPE I PLANCHETS

During the annealing process, some discoloration occurs on the surface of the blanks. This discoloration is removed by tumbling the blanks against each other and passing them through a chemical bath. Then they are dried by forced air. The blanks are now completed Type I planchets and are nothing more than flat discs.

The blanks are then taken to the upsetting mills. The upsetting mill consists of a rotating wheel with a groove on its edge. The grooved edge of the wheel fits into a curved section (or shoe) which has a corresponding groove. The distance between the wheel and the shoe gets progressively narrower so that, as the planchet is rolled along the groove, a raised rim is formed on both sides of the blank. This raised rim serves several purposes.

It sizes and shapes the blank for better feed at the press and it work-hardens the edge to prevent escape of metal between the obverse die and the collar. The raised edge also helps to extend the life of the finished coin by keeping the designs from rubbing against each other and wearing off.

The blanks are now called Type II planchets and are ready to be struck into coins.

DIE PREPARATION

The dies used for striking coins start out as an approved sketch of the coin in the Engraving Department at the Philadelphia Mint. The sculptor-engraver makes a plasticene (modeling wax) model in bas-relief from the sketch. The model will be anywhere from 3 to 12 times as large as the finished coin. Next, a plaster-of-paris negative is made from the model. The negative is touched up and details are added. Then a plaster-of-paris positive is made. The positive is used as the model to be approved by the Director of the Mint and the Secretary of the Treasury. If pictures are required for such approval, they are taken of this positive.

When final approval is received, another negative is made and a hard epoxy positive model is prepared. The epoxy model replaces the copper galvano once used by the U.S. Mint.

EPOXY TO HUB

The completed epoxy is then mounted on a Janvier Transfer Engraving Machine. This machine cuts the design in a soft tool steel blank to the exact size of the coin, following the exact details of the epoxy, producing a positive replica of the model. This positive is called a "hub." The hub is then heat treated to harden it and is used in a hydraulic press to prepare a master die. The original hub is carefully stored in a safe place to ensure against loss of the original reduction.

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Working hubs are made from the master die in the hydraulic press, and hardened in the same way.

Working dies are made from the working hub in the same way. Pressing an image into a piece of soft tool steel hardens the metal so that annealing is usually required to fully form the image. Two to three cycles may be needed to properly impress all details into the steel.

The working dies for non-Proof and commemoratives are now complete except for the Mint mark. Mint marks are added by using a handpunch, although some are Mint marked at the initial modeling stage.

Coinage operations are performed in the coin press room. It is in this operation that the blanks are transformed into their final identity. They are fed into the presses as blanks and come out bearing the devices and inscriptions which make them coins of the realm.

COINING PRESSES

After the coins have been struck they are ready for inspection. The press operator will take random samples of the finished coins and inspect them under a magnifying glass to look for any defects made by the die during operation. After passing the inspection, the coins are sent to the counting room where they are counted by electronic counting machines, weighed and bagged. The bags are sewn shut and are taken to holding vaults where they will await shipment to any one of 12 Federal Reserve Banks through out the country.

The first coining presses in the Mint were hand operated which limited their output. Later presses were powered by steam boilers and were capable of 55 strokes per minute. Still later presses, speeded up to 140 strokes per minute, were converted to accept dual dies which doubled the output. Presently, some presses have been converted to four dies, and 200 strokes per minute increasing production to approximately 800 coins per minute.

COST TO PRODUCE U.S. COINS BASED ON PER THOUSAND PIECES

Cent	\$.93 /1000 = \$ 10.00
Nickel	2.43 /1000 = 50.00
Dime	1.72 /1000 = 100.00
Quarter	2.52 /1000 = 250.00
Half	5.70 /1000 = 500.00

MINT MARKS

A Mint Mark is a small letter added to the design of a coin to show which mint manufactured it. Mint marks date back to the days of ancient Greece and Rome. Mint marks on U.S. coins began with an Act of Congress of March 1835, which established the first branch mints in this country. This Act provided that the Director of the Mint prescribe regulations for identifying coins stamped at each mint, thus assuring central control of all coinage so that production would be exactly standard. The letters used to signify the various Mints are:

C	Charlotte, N.C.	(Gold coins only) 1838 - 1861
CC	Carson City, Nev	1870 - 1893
D	Dahlonaga, Ga.	(Gold coins only) 1838 - 1861
D	Denver, Colo	1906 - present
O	New Orleans, La.	1838 - 1861 & 1879 - 1909
P	Philadelphia, Pa.	1793 - present
S	San Francisco, Calif.	1854 - 1955 & 1968 - present
W	West Point, NY	(Gold coins only) 1984 - present

Since Philadelphia was the only mint in operation for many years, no identification of the coinage was needed. Even after branch mints were established, the practice was continued. In January 1980, the letter "P" appeared on all 5, 10, 25 and 50 cent denominations. The cent is still struck without a mint mark.

Denver coins have always been marked with the letter "D".

San Francisco coinage carries the "S" Mint mark. However, in March 1955, coinage operations at San Francisco were discontinued. During the early 1960's it became apparent that we were moving toward a coin shortage and that production would have to be increased. The Coinage Act of 1965, approved by President Johnson, reactivated the San Francisco Assay Office as a mint and production of coins resumed on September 1, 1965. In 1968, San Francisco began the production of all Proof Coinage. Since 1974 the only circulated coin to bear the "S" mint mark was the Susan B. Anthony Dollars of 1979 - 1981.

The West Point Silver Bullion Depository in New York was built to hold the nation's silver and approximately one-fourth of the gold supply. In 1974 some of the older presses from the Philadelphia Mint were installed at West Point and began producing cents and medals. In late 1976 it also began test striking quarters. At first coinage produced at West Point bore no mint marks, that changed in 1983 when the Olympic Gold Eagles were struck bearing a "W" mint mark.

THE USE OF "E PLURIBUS UNUM" ON UNITED STATES COINAGE

E PLURIBUS UNUM was first used on our coinage in 1795, when the reverse of the half eagle (\$5 gold piece) presented the main features of the Great Seal, on the scroll of which this inscription belongs. The same device was placed on certain of the silver coins in 1798, and so the motto was soon found on all the coins in the precious metals. In 1834, it was dropped from most of the gold coins to mark the change in the standard fineness of the coins. In 1837 it was dropped from the silver coins marking the era of the Revised Mint Code.

The Act of February 12, 1873 made this inscription a requirement of law upon the coins of the United States. A search will reveal, however, that it does not appear on all coins struck after 1873, and that not until much later were the provisions of this Act followed in their entirety. From facts contained in Mint records it would appear that officials did not consider the provisions of the law mandatory, but rather, discretionary. The motto does appear on all coins currently being manufactured.

The motto as it appears on U.S. coins means "One Out of Many," and doubtless has reference to the unity of the early States. Colonel Reed of Uxbridge, Massachusetts, is credited with having the inscription placed on our coins.

THE UNITED STATES MINT AT DENVER

THE EARLY DAYS

Established by an Act of Congress, April 21, 1862, the Denver Mint opened for business in 1863 as a U.S. Assay Office.

Operations began in the facilities of Clark, Gruber & Company, a private mint then located at 16th and Market Streets and acquired by the Government for \$25,000.

However, unlike Clark, Gruber & Company, which purchased gold from miners to manufacture gold coins, the Denver plant performed no coinage functions and, therefore, could not assume the status of a branch mint for the coinage of gold as first intended. One reason given by the Director of the Mint for the lack of coinage at Denver was, "...the hostility of the Indian tribes along the routes, doubtless instigated by rebel emissaries (there being a Civil War) and bad White men."

Gold dust and nuggets brought in by miners from the surrounding area were accepted by the Assay Office for melting, assaying, and stamping of cast gold bars. The bars were then returned to the depositors as unparted bars stamped with the weight and fineness of the gold.

Most of the gold came from the rich beds of placer gold found in streams and first discovered in 1858, the year Denver was founded. This source of gold was largely exhausted by 1867, and miners then turned to lode mining, uncovering veins of ores having a high percentage of gold and silver.

By 1895, the aggregate value of gold and silver deposited annually at the Assay Office was in excess of \$5.6. million.

During its early years as a private mint and then as a U.S. Assay Office, the Denver mint was the City's most substantial structure. It was a refuge for women and children when Indian raids threatened. However, by 1877, the structure was reported to be so dilapidated as to be considered unsafe.

COINAGE BEGINS

On February 20, 1895, hopes revived for branch mint status when Congress provided for the establishment of a mint at Denver for coinage of gold and silver.

The site for the new mint at West Colfax and Delaware Street was purchased for about \$60,000 on April 22, 1896. Construction began the following year. Insufficient appropriations to complete and equip the plant delayed the transfer of assay operations to the new building until September 1, 1904. Then, in February 1906, coinage operations began, and the Denver facility advanced to the status of branch mint.

During the first year of operation, the Denver Mint turned out gold coin valued at \$33.8 million and silver coin valued at \$3.2 million. Coinage of one-cent pieces began in 1911 and, in that year, 12.6 million pieces were minted.

In 1906, a total of 167,371,035 coins were manufactured. Currently, the Denver Mint's annual production is approximately 8 billion coins with a dollar value of approximately \$400 million.

90% silver dollars were last minted in 1935. The Coinage Act of 1965 eliminated 90% silver in dimes and quarters, and it reduced the silver content of half-dollars to 40%. Coinage legislation, approved December 31, 1970, removed all silver from circulating dollars and half-dollars but permitted the coining of up to 150 million, 40% silver Eisenhower dollars. The minting of cupro-nickel dollars was resumed in 1971.

Currently, operations at the Denver Mint are concentrated on the blanking function and the stamping of coins. Private contractors supply the prefabricated rolls of metal from which coin blanks are punched and the penny blanks which are ready to be fed into the stamping presses.

It takes approximately 40 tons of force to stamp a penny or dime; 80 tons of force for a quarter; 60 tons for a nickel; 110 tons for a 50-cent piece.

The Denver Mint's entire production of coins is distributed through Federal Reserve Banks in accordance with shipping orders from the United States Mint in Washington, D.C. The Federal Reserve Banks, in turn, distribute the coins to their member banks.

ARCHITECTURE

The architecture of the Denver Mint is Gothic Renaissance. When viewed from the street, the structure gives the impression of being two stories high. Actually, there are five floors.

The stone facing of the building is Colorado granite. The Arkins granite above that (which required large slabs) is from Maine. Tennessee marble forms the window trimmings, and Vermont marble was used for the interior finish.

Inside, three mural paintings representing Commerce, Mining, and Manufacturing adorn the area above the cornice in the main vestibule. They are the work of Vincent Adriente, who worked under the supervision of the celebrated mural artist, Edwin Howland Blashfield of New York City. The main corridors on the first floor, the mezzanine, and the second floor are also richly decorated and were done under the direction of John Gibson, of an old Philadelphia firm.

To meet the growing demand for coins, the building was expanded in

1936. In 1946, 1965, new wings were added. An additional expansion was completed in 1986.

The Great Seal of the United States, in the form of a large metal casting, was originally placed in the floor of the vestibule. By the summer of 1961, the seal had worn so smooth that it was replaced by a mosaic. The original metal seal now hangs in the Gold Hall.

At the Denver Mint, visitors may view a display of six gold bars. The average gold bar on display weighs approximately 27 1/2 pounds. The U.S. Mint, including all field offices, discontinued the purchase and sale of gold as of close of business on March 15, 1968.

Souvenir coin sets, the National Medals of the United States, and other numismatic items, are on sale in the Numismatic Salesroom.

Because tour hours are subject to change without notice, please call (303) 844-3582 or 844-3332 to check on visiting hours at the Denver Mint.

DESIGNS ON U.S. COINS

PENNY	1909 - 1958	Wheat Reverse
	1959 - present	Abraham Lincoln
Nickel	1913 - 1938	Indian Head or Buffalo
	1939 - present	Thomas Jefferson
Dime	1916 - 1945	Winged Liberty Head or Mercury
	1946 - present	Franklin D. Roosevelt
Quarter	1916 - 1930	Standing Liberty
	1932 - present	George Washington
Half	1892 - 1915	Barber or Liberty Head
	1916 - 1947	Walking Liberty
	1948 - 1963	Ben Franklin/Liberty Bell
	1964 - present	John F. Kennedy
Dollar	1921 - 1935	Peace Type
	1971 - 1978	Dwight D. Eisenhower
	1979 - 1980	Susan B. Anthony

Coins are shipped to the Federal Reserve Banks in bags or large metal containers. When the coins are shipped in bags, they are shipped out in the following quantities:

<u>Coin</u>	<u>Pieces per bag</u>	<u>Amount/bag</u>	<u>Weight</u>
Penny	5,000	\$50.00	28 lbs
Nickel	4,000	\$200.00	37 lbs
Dime	10,000	\$1,000.00	50 lbs
Quarter	4,000	\$1,000.00	50 lbs
Half	2,000	\$1,000.00	50 lbs

Coins are shipped in the large metal containers when a bank orders a large number of a particular coin and requests that the coins be sent in these containers. These containers will hold from 200,000 pieces for the quarters, to 500,000 pieces for the dimes.

Rocky Mountain News
September 2, 1904, p.14

DIRECTOR ROBERTS PRESIDES AT THE DEDICATION OF THE UNITED STATES MINT

The new United States Mint, located at the corner of West Colfax Avenue and Evans Street, was formally taken possession of by Government officials yesterday morning. Director of the Mint Roberts, now in Denver on his way to Washington from Alaska, was master of ceremonies at the dedication.

The exercises took place on the roof of the new building. They were simple and brief, and the new flag which will hereafter fly from the great pole on the top of the new building was raised by three veterans of the Civil War. They were Colonel R. C. Webster, Sergeant A. S. Whitaker and A. B. Sanford. Immediately after the flag was raised, the President's salute of twenty-one guns was fired, and the mint was then formally declared to be the property of the United States Government.

Only a few persons, those directly interested in the new building and its operation, were present. They were Frank M. Downer, Superintendent; Joseph W. Wilson, Melter; Edward P. Leech, Chief Clerk; F. E. Healy, Engineer in Charge of Equipment; A. L. Fribourg, Melting Clerk; George Brierly, Clerk and J. Fred Roberts of Denver, a cousin of Director Roberts.

The Denver Mint ranks third in the United States, San Francisco and Philadelphia being larger, but not excelling the local Mint in excellence of construction and equipment. The Denver building will not, however, begin coinage until next January, as Congress has not made an appropriation for this purpose.

(OVER)

Director Roberts, after the dedication, stated that the Denver Mint would be capable of handling all the business of the Rocky Mountain region, but he declined to venture an opinion as to the capacity of the machinery. The new building is one of the most complete structures of the kind ever erected by the Government. The public were allowed in the building for the first time yesterday. There are still many workmen there putting on the finishing touches.

Roberts Talks.

Mr. Roberts, before leaving on the 9:40 Union Pacific train for Iowa last night, made the following statement in regard to the new Mint:

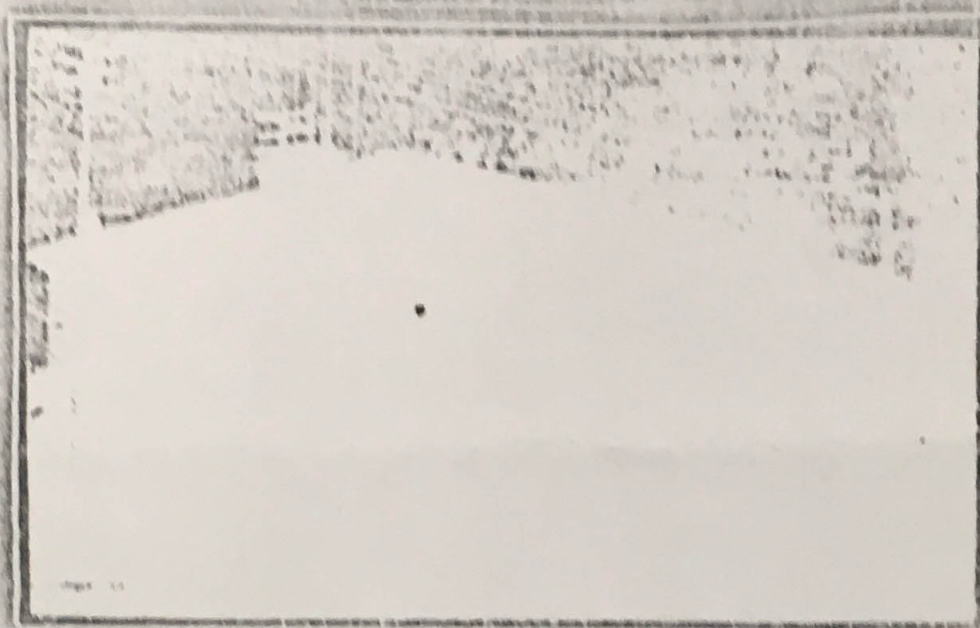
"The people of Denver will take great pride in the Mint when it is finally completed.

"The offices and that part required for the assaying are complete, but rooms for coinage and power plant are not yet out of the contractors' hands.

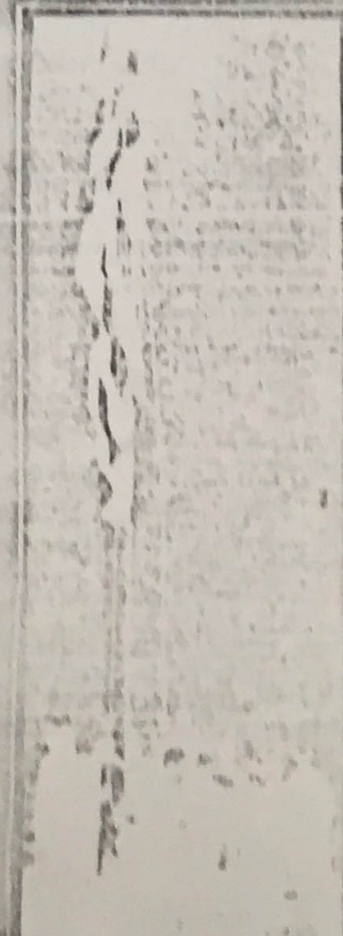
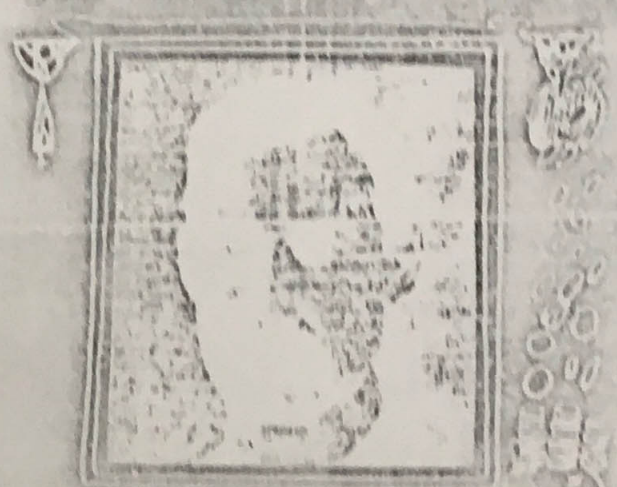
"The appropriation to be made by Congress this year will be large enough to provide for the full force required to operate coinage. The number will not exceed 100 in the Denver Mint.

"Coinage will be all gold. If Colorado will settle her strikes and get to work the output of the Mint will reach \$30,000,000 in gold the first year, besides \$2,000,000 in silver."

DIRECTOR ROBERTS PRESIDES AT THE DEDICATION OF THE UNITED STATES MINT



THE NEW MINT, WITH DIRECTOR ROBERTS AT THE DEDICATION



Co

612-84

NO. 11 IS 1/2

**TWO DAYS
STRAW HAT**

25 DOLLAR
HATS FOR THE
WINTER

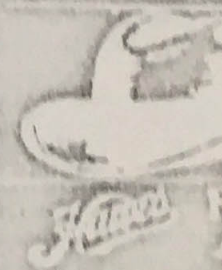
NEW FALL

FULL OF NEW
STYLES ARE FOR
WINTER
EXTREMELY LOW

At \$14

THE NEWEST
FALL, WINTER HATS

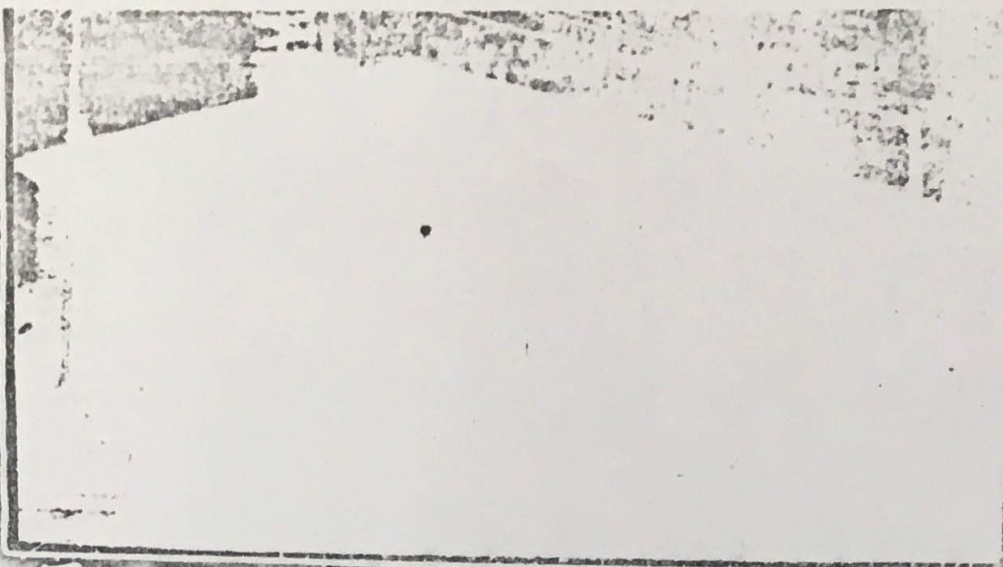
RAIN COAT



\$3.00

For more information
contact the store
at 1234 Main Street
Denver, Colorado

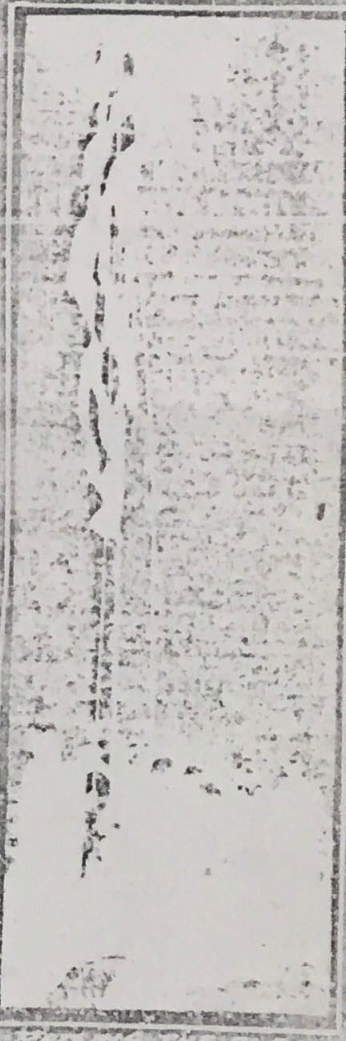
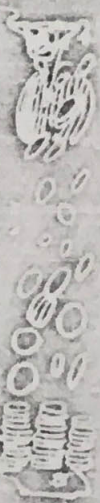
7-2-2000
KNN



THE NEW RAIN, WEST COLLEAVE AND LYING STREET



GEORGE E. ROBERTS
DIRECTOR OF THE RAIN



THE NEW RAIN

SELECTION OF SITE DIFFICULT

Address: ...
City: ...
on ...
...

MILLER OPPOSES HABEAS CORPUS

Address: ...
City: ...
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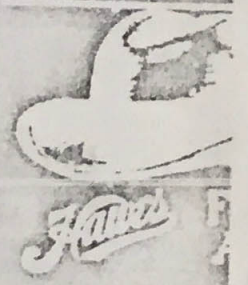
TWO DAYS
STRAW HAT
ON ...
...

NEW FALL

...

At \$14

RAIN COAT



\$3.00

...



500 TROY OZ. BEAM BALANCE

Manufactured in 1838 by Henry Troemner,
Philadelphia, Pennsylvania.

Purchased by New Orleans Mint in 1838 for
\$700.00.

Sent to the Denver Mint in 1934 for the
purpose of weighing gold and silver.

HISTORY OF THE DENVER MINT

- - - - -

Gold was first discovered in what is now the State of Colorado in 1858, on the Platte River, near the City of Denver, then embraced in the State of Kansas. Colorado was created a Territory by an Act of Congress approved February 28, 1861. The discovery of gold in Colorado created much excitement and it was not long before there was a rush for the new gold fields. Owing to the lack of transportation the only means of the outside world to reach Colorado was by wagon and stage across the plains. At times this was attended by great hardships, on account of the hostilities of the Indians. In 1859 placer mining was carried on with great activity, not only on the Platte River where gold was first discovered, but in other sections of the State. Mining was for some years confined exclusively to placer claims.

The miners experienced considerable difficulty in disposing of their gold on account of lack of transportation facilities and the want of a circulating medium, and in consequence were compelled to dispose of their gold dust at a sacrifice. These conditions of isolation made it necessary to undertake private coinage and from 1860 to 1862 there

were three firms engaged in that business namely, Clark, Gruber & Co., J.J. Conway and John Parson & Company. Of these firms Clark, Gruber & Company was the most prominent and did the largest coinage the other firms doing only a very limited amount.

The coinage of the above mentioned firms was entirely of a private character and connived at by the Government which regarded it as a necessity under the circumstances. In fact the Government opened negotiations with the firm of Moffat & Company in San Francisco with a view of having that firm coin gold for the Treasury of the United States, but the decision to establish a mint at San Francisco rendered such an arrangement unnecessary. However, the production of gold coins of a private character in the West was very extensive and carried on by a large number of mining companies and banking establishments. The pieces thus issued ranged in value from $2\frac{1}{2}$ dollars up to 50 dollars, and the coinage of the Denver firms heretofore mentioned was as follows:

Clark, Gruber & Company.

20 Dollars - 1860. Obverse, Pike's Peak. Inscription:

"Pikes Peak Gold". with "Denver" beneath and below "Twenty D".

Reverse, an eagle with shield on breast, olive branch and arrows in talons; below, 1860. Edge reeded.

10 Dollars - 1860. Similar to the \$20 piece above except

the mark of value.

10 Dollars, 1861. Obverse, Bust of Liberty to left, with a diadem inscribed Pikes Peak; around 13 stars; beneath bust, 1861. Reverse, Clark Gruber & Company, Denver. A spread eagle with shield on breast, olive branch and arrows in talons; below, Ten D.

5 Dollars, 1860. Obverse, Head of Liberty to left, with diadem inscribed Clark & Co. Reverse, Pikes Peak Gold, Denver. An eagle with wings displayed; below Five D. around 13 stars, below 1860. Edge reeded.

2½ Dollars, 1861. Similar to \$10 pieces of 1861, above, except for the mark of value which is 2½ D.; reading, on the reverse, Clark - Gruber & Co. - Denver.

J. J. Conway, Denver, Colorado

10 Dollars - No date. Obverse, J.J. Conway; within a circle & Co., below, Bankers. Reverse, within a circle of stars, 10; above, Pikes Peak; below, Ten Dollars. Edge plain.

5 Dollars - No date. Obverse, within a circle of stars & Co., below, Bankers. Reverse, in center of field 5½ above Pikes Peak; below, Five Dollars.

2½ Dollars, undated. Obverse, similar to \$5 piece above but without circle of any sort. Reverse, in center of field 2½: above Pikes Peak, below, Dolls.

John Parson & Company, Tarryall Mines, Colo

5 Dollars - undated. Obverse, Pikes Peak Gold. An eagle,
below, Five D. Reverse, Jno. Parson & Co. A quartz mill;
below ORO.

2½ Dollars - undated. Similar to \$5 piece above, but reading
on obverse J. Parson, etc., and on reverse, 2½D.

- - - - -

The Mint at Denver was established by Act of Congress approved April 21, 1862. It was exclusively for the coinage of gold and the sum of \$75,000 was appropriated to carry into effect the provisions of the act to meet the expenses for the fiscal year 1863.

On June 11, 1862 George W. Brown, Samuel E. Browne, district attorney, and Samuel H. Elbert, Secretary of the Interior, were appointed by the Secretary of the Treasury as a committee to inquire into the expediency of purchasing the lot, building and apparatus of Clark, Gruber & Company for the branch mint of the United States at Denver, Colorado. Dr. Oscar D. Munson, formerly connected with the mint at San Francisco was authorized to confer with the committee which reported favorably on the purchase of the plant of Clark, Gruber & Company, fixing the value of the same at \$25,000 and on November 25, 1862 a formal offer was made by the Secretary of the Treasury, Salmon P. Chase to Clark, Gruber & Company to purchase the plant for the sum of \$25,000 which was accepted.

It was found that the ground upon which the building was located was preempted by Clark, Gruber & Company and that they had not been able to perfect their title to the same, for the reason no land office had been established for that purpose. Accordingly on March 3, 1863, the following resolution was passed by Congress, enabling the Secretary of the Treasury to obtain a title to certain property, in the City of Denver, for the purpose of the branch mint located in that city: * * * * * And whereas the said Clark, Gruber & Company have not and cannot at an early day, perfect their title to said lots by entry of the same at the district land office, for the sole reason that no such office is yet established in said district;

And whereas it is highly important for the interest of the Government to obtain at an early date the use and possession of said property to establish and open said mint; Therefore Resolved by the Senate and House of Representatives of the United States of America in Congress assembled that the Secretary of the Treasury be and he is hereby authorized to receive and accept from Clark, Gruber & Company such relinquishments and conveyances of their right or claim to said lots and property as he, the Secretary of the Treasury, shall deem sufficient for the extinguishment of any claim, right, or title which the said Clark, Gruber & Company may or can have thereto. And said lots and property shall thereafter be saved from public sale,

presumption or homestead settlement, and shall remain the property of the United States.

Title to the property was finally obtained in April, 1863 and immediate steps were taken to equip the building, but the time required to prepare the building and to have the machinery, apparatus, etc., constructed in the East, transported to so distant a point, prevented the opening of the institution until the latter part of September, 1863. No action was taken, however, to formally equip the building as a coinage institution, its only machinery of that nature being what had been acquired from Clark, Gruber & Company with the building and lots and its operations were confined to the melting, refining, assaying and stamping of the bullion deposited and its return to depositors in unparted bars, stamped with the weight and fineness. Although a superintendent, assayer and coiner were appointed in November, 1862 and a melter and refiner in December, 1862 no coinage of any kind was undertaken during their incumbency or at any subsequent period at this building as a branch mint, its functions being confined to the functions above outlined. In 1869, Congress, on the recommendation of the Secretary of the Treasury, provided that it should be conducted only as an assay office, with an assayer in charge and a melter, the amount of bullion deposited not justifying its continuance as a branch mint with a full corps of officers, and operations were accordingly confined to the melting and

assaying of bullion and its return to depositors for several years when instead of returning bullion to depositors it was shipped to the Mint at Philadelphia, save in such cases as depositors desired its return.

On February 20, 1895, through the instrumentality and influence of Senator Edward O. Wolcott of Colorado, Congress passed an act providing for the establishment of a mint at Denver, Colorado, for the coinage of gold and silver.

The bill making appropriations for the legislative, executive and judicial expenses of the Government for the fiscal year 1896, approved March 2, 1895, made provision for the purchase and commencement of a mint building at Denver, appropriating \$100,000 therefor, and authorized the Secretary of the Treasury to contract for the completing of a building at the cost, including site, heating, ventilating, fireproof vaults, etc., not exceeding \$500,000. On April 22, 1896 a site was purchased at a cost of \$60,261.71 and initial building operations begun in July 1897. As work thereon progressed, however, it was found the original appropriations were not sufficient, and this was increased by additional appropriations to \$800,000.01 plus \$345,055 for machinery, etc. This amount was further increased by providing that the amount received for the sale of the old mint building acquired from Clark, Gruber & Company at 16th & Market Streets, authorized by Act of Congress June 30, 1906 should be applied to the

furnishing of the new building, approximately \$31,000 being received therefor. The new building although not completely finished, was occupied in September, 1904, but coinage operations were not commenced until February, 1906, the first coins issued being the quarter dollar denominations.

The stone facing of the building consists of Platte Canon granite up to and including the water-table and Arkins granite above that to the cornice which latter, owing to the large size of the stone specified, was procured in Maine.

The window trimmings are of Tennessee marble and all marble of the interior finish, was obtained in Vermont. The decoration of the main corridor on the first floor, the mezzanine floor and the second floor were executed under the direction of John Gibson, an old established firm in Philadelphia, who also furnished the three mural paintings which adorn and rest above the cornice inside the main vestibule. These paintings were executed by a young Italian named Vincent Adriente under the supervision of the celebrated mural artist Edwin Howland Blashfield of New York City. They are purely symbolic and typify Commerce, Mining and Manufacture.

The first addition to the original building was started in September 1935 and completed late in 1936. It is of the same type construction as the original building. It was first occupied in 1937.

The second addition was started in September 1945 and differs from the original buildings and 1935 addition in that it is of reinforcing steel and concrete and flat slab construction. At the time of this writing the building contractor is ready to pour the concrete for the second floor slab.

*Second addition with 18" Rolling equipment
+ High frequency melting 1945.*

John D. Jamieson

A Summary
of
The History and Operations
of
The United States Mint
in
Denver, Colorado

Written by the Superintendent, Fern V. Miller,
April 1962, the one-hundredth anniversary of
the establishment of the Denver Mint.

Owing to the slow, unsafe means of transportation and the economic need of turning the gold dust and nuggets--taken from the many mines in the Colorado Territory--into some circulating medium which would be more easily handled, private coinage enterprises sprang up in Colorado as early as 1860. There were three firms engaged in this business, namely, Clark, Gruber & Co., J. J. Conway, and John Parson & Co. Of these, Clark, Gruber & Co. was the most successful. The only coins made were of gold, and were, namely, \$20, \$10, \$5, and \$2½.

In April 1862, by act of Congress, the Mint at Denver was established. The sum of \$75,000 was appropriated to cover the expenses for the year 1863; it was exclusively for the coinage of gold. A committee was appointed to look into the expediency of purchasing the ground, building, and equipment of Clark, Gruber & Co. for the branch Mint of the United States at Denver, Colorado. On November 25, 1862, Secretary of the Treasury Salmon P. Chase purchased from Clark, Gruber & Co. their Mint, at what is now Sixteenth & Market Streets. As more modern equipment was expensive and transportation slow, the operations were limited to melting, refining, assaying, and stamping of bullion and returning it to depositors in unparted bars stamped with the weight and fineness. In 1869, Congress provided this branch should be conducted as an assay office only. If depositors desired, their bullion was shipped to the Mint at Philadelphia--which had been established in 1792.

On February 20, 1895, through the influence of Senator Edward O. Wolcott of Colorado, Congress passed an act providing for the establishment of a Mint at Denver, Colorado, for the coinage of gold and silver. On March 2, 1895, an appropriation of \$100,000 was authorized for the commencement of a Mint building. The Secretary of the Treasury was authorized to contract for the completing of the building--including site, heating, ventilating, and fireproof vaults; the total cost of which should not exceed \$500,000. On April 22, 1896, the site was purchased at a cost of \$60,261.71, and initial building operations began in July 1897. As work progressed, it was found that the original appropriation was insufficient, so Congress increased the sum to \$800,000, plus \$345,055 for equipment. Added to this was the \$31,000 received from the sale of the old Clark, Gruber & Co. building. The new building was ready for occupancy in September 1904, but the coinage program did not commence until February 1906. The first coins made were quarter-dollars.

The stone facing of the building is Colorado granite, up to and including the water table; and the Arkins granite above that, to the cornice (which required large slabs), was procured in Maine. Tennessee marble forms the window trimmings; and the marble used in the interior finish was obtained in Vermont.

The decorations of the main corridor on the first floor, the mezzanine floor, and second floor were executed under the direction of John Gibson, a member of an old Philadelphia firm. This firm also furnished the three mural paintings which adorn the area above the cornice inside the main vestibule. These paintings are the work of a young Italian named Vincent Adriente who worked under the supervision of the

celebrated mural artist Edwin Howland Blashfield, of New York City. The paintings are purely symbolic and typify Commerce, Mining, and Manufacturing.

In the center of the vestibule floor was a large metal casting of the Great Seal of the United States. In the summer of 1961 this seal, which had worn so smooth that it was considered unsafe, was replaced by a mosaic replica.

In 1935, and again in 1944, sizable additions have been built on the Denver Mint, and, upon the closing of the Mint at San Francisco in 1955, much of the machinery was shipped to the Denver Mint.

Of the two operating Mints in the United States, Denver holds the lead in the production of domestic coins. The other Mint, at Philadelphia, has the honor of being the oldest Mint. It produces the dies for both the Mints, as well as medals and awards for the armed services and some coins for foreign countries. Here also are produced the popular proof coins, as well as domestic coins. Both Mints are under the administration of the Bureau of the Mint, United States Treasury Department.

The Mints should not be confused with the Bureau of Printing and Engraving, in Washington, where all our paper money is made. The minting of coins is one of the United States' most successful businesses and brings to the U. S. Treasury a considerable profit. Newly-mined gold and silver and scrap gold are purchased by the Denver Mint from licensed dealers.

Mutilated and uncurrent coins are returned to the Mint by the banks, for redemption. These are paid for on the basis of the weight of the metal they contain; they are then melted and recoined.

* * *

The Denver Mint is operated much like a modern steel-stamping manufacturing plant except that stringent precautions must be taken to protect, as well as account for, the billions in precious metals stored there. More than two billion coins, or approximately 69 percent of all domestic coins made last year, were made at this Mint.

There are two major divisions in the coining operation: the Melting and Refining Division and the Coining Division.

The Melting and Refining Division.--Starting in the make-up room, the exact amount of alloy is weighed, then placed in a container with the metal to be melted. The various alloys are: cents, 95% copper plus 5% zinc and tin; nickels, 25% nickel and 75% copper. All silver coins are 90% silver and 10% copper. The metals are next melted by electrically-heated furnaces, then poured into molds. After these large bars harden we have what is known as ingots. An ingot is a bar 5 feet long, 12 inches wide, and 1-3/4 inches thick and weighs approximately 410 pounds.

After the ingots have been cooled, they are smoothed off, at which time they are ready for the Coining Division.

The Coining Division.--Here, the large ingots receive 12 to 15 passes through the breakdown rolling mill, which is powered by a 350 horsepower electric motor. The 700,000 pound pressure exerted by this mill reduces the ingot to a $\frac{1}{4}$ -inch thickness, 12 $\frac{1}{4}$ inches wide, and 37 feet long.

The reduction of the metal in rolling makes the nickel and silver slabs so hard that they must be annealed (a heating process). The slabs then go to the finishing mill, where, after six or nine rollings, the desired thickness for the coin is accomplished. The strips, now approximately 225 feet long, are rolled into coils; each coil is then split into two coils 5-7/8 inches wide.

These coils are now fed into automatic punch presses, where the planchets, or blanks, for the coins are cut out. The maximum rate of production for these presses is 2,800 cent or dime blanks per minute per press. The unused portion of the strips, as well as the scraps, is cut up, re-melted, and put through the same process.

The cut blanks are then weighed and sent to the bleach room, where they are cleansed and annealed for further processing.

The next stop is the press room: there, the cut blanks go through the "up-setting" mills, which roll a high edge on the coin. This action is produced by a centrifugal force; it squeezes the edge up and down, all around the blank. This raised edge is important to the coin as it protects the embossment and makes it easier for wrapping or stacking.

The blanks are now given a close inspection and all defective blanks are removed. Normally, less than one percent of the blanks are removed for defects.

After reviewing, the cent, nickel, and dime blanks are ready for the coining presses. The quarter and half-dollar blanks must go through another weighing process to be sure they meet weight specifications. Dollars have not been made since 1934.

The blanks are now ready for the coin press section, where the "heads and tails" are stamped. There are 29 presses in this section. It is possible to stamp two at a time, the penny, the dime, and the nickel, with one press stamping as many as 270 pennies in one minute. With quarters or half-dollars, only one coin is stamped at a time. It takes 30 tons of pressure to stamp a penny or a dime, 60 tons for a quarter, 75 tons for a nickel, and 100 tons for a fifty-cent piece. As the coins roll out into the hopper, a man with a magnifying glass inspects one, two, or three coins, intermittently, in case there might be some imperfection. If he sees none, the hopper is emptied into a big metal box; but, if he finds any defective coins, he checks further in the hopper and sends back all "imperfects" to be re-melted.

[The dies for these stamping machines are made from a master die in Philadelphia.] A die will last one-and-a-half million strikes for 1-cent pieces, 400,000 strikes for a nickel, and 700,000 or 800,000 strikes for silver coins. When a die is worn out it is taken off and mutilated with an arc welder.

The finished coins are then sent to the counting section. Here the coins are counted, sacked, and weighed. Each of ten automatic counters counts coins at the rate of 2,000 a minute, going into sacks. The sacks when filled are sewn at the top by a hand sewing-machine. Fifty dollars in cents, \$200 in nickels, and \$1,000 in dimes, quarters, and halves are packed into the sacks.

The sacks of coins are stored in vaults until orders come from the Bureau of the Mint in Washington, D. C., to ship them to the various Federal Reserve Banks--from where the local banks all over the nation obtain their currency.

Waste is virtually unknown in the Mint. The staff go to great lengths to reclaim every particle of valuable dust that might otherwise escape and never be reclaimed. Even the water from the showers and the basins flows into a large tank which is periodically cleaned out; any residue is then added to the sweeps--which amounts to several thousand dollars each year.

In 1936, when some of the walls and floors were dismantled to make way for new construction and enlarging of the storage vaults, approximately \$67,000 in gold sweeps was recovered.

Visitors to the Denver Mint find the gold display to be of great interest. They are told about the vast vaults, where approximately two-and one-half billion dollars' worth of the precious metal is stored. They are also told about the great movement, in 1934, of gold from San Francisco to the Denver Mint. Owing to the rumblings of war, it was deemed advisable to move much of the gold bullion inland for safety. The shipments were made by Parcel Post. Much credit goes to the Post Office Department, Federal soldiers, Secret Service agents, railroad detectives, local police, and the Mints' own well-trained guards for a tremendous transfer without one black mark on the record.

Naturally, for security reasons, only a small display of gold is out where visitors may see it. The display varies from day to day; it consists of a small cart, or wheelbarrow, with a load of gold bars. Each bar measures approximately $6\frac{3}{4}$ " x $3\frac{1}{2}$ " x $1\frac{5}{8}$ " and weighs in the neighborhood of 30 pounds. At \$35 an ounce, each bar is valued at close to \$15,000. The guide shows the visitors a 14-inch, wooden-cube block which, he explains, were it made of gold would weigh one ton and would be worth over a million dollars.

One of the first (and most frequently asked) questions by the visitors is about the Denver Mint robbery, which occurred December 18, 1922, when \$200,000 was stolen. As a matter of fact, this was not a robbery of the Mint as the \$200,000 belonged to some individual firms who had that amount stored at the Mint and were taking it from the Mint to an armored car when the robbery occurred. Another question asked (and again, many times) is whether the Mint employees are searched before they leave the building. No, the employee is not searched, however any bundle or lunch pail that they may take out is subject to inspection by the guard

at the grill. All employees have been given a thorough investigation before they are employed, and, if there is any doubt about their integrity, they are not hired. By the thorough check in the weighing system, any discrepancy on the production floor can be traced in a matter of a very short time. Well-trained, armed guards are on duty at all times. With three full shifts working, approximately 300 persons are employed. All employees are under civil service with the exception of the Superintendent and the Assayer--who are appointed by the President of the United States and confirmed by the Senate.

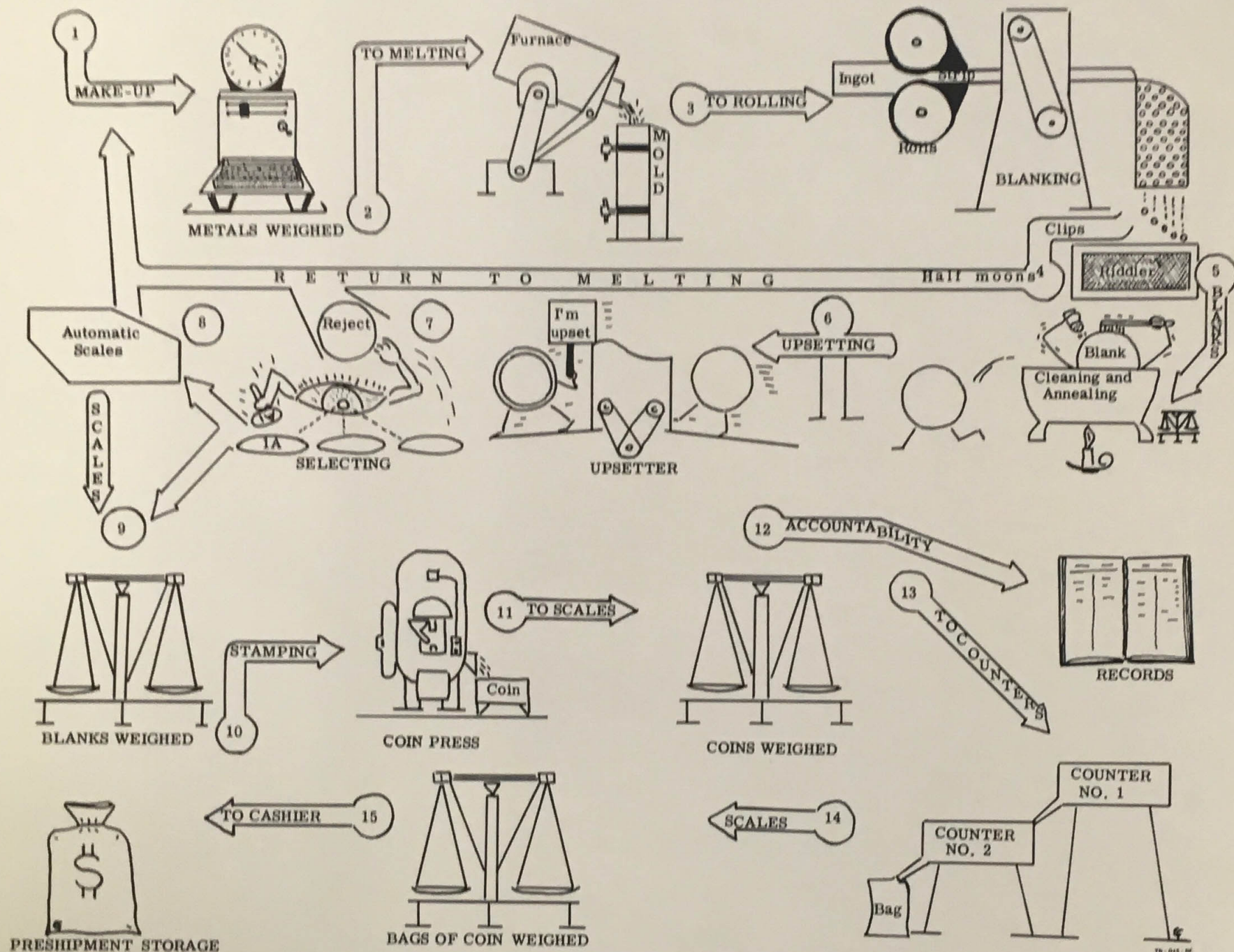
The Mint has set up two tour schedules (Monday through Friday) for visitors: the summer schedule runs from July 5 to Labor Day, with seven tours daily - 7:45 a.m., 8:45 a.m., 9:45 a.m., 10:45 a.m., 12:30 p.m., 1:30 p.m., and 2:30 p.m.; the remainder of the year there are two tours daily - 9:30 a.m. and 1:00 p.m. A tour takes approximately one hour. Reservations are necessary and should be made as far in advance as possible. When writing for a reservation be sure to give the number there will be in your party; also, it is advisable to give more than one choice of dates. Children under the age of eight may not make the tour, but may remain in the lobby. During the shutdown period in June, when inventory is taken, visitors are allowed to visit the lobby and lower hall where they may see the gold display; this may be done without reservations at any time between 8:30 a.m. and 3:00 p.m. and, in this instance, there is no age limitation for children. Cameras are not allowed in the building.

*The Mints are not in the banking business: they can not send out newly-minted coin, nor do they deal in collectors coins or have any special information on rare coins; and, in the case of the Denver Mint, they do not sell proof sets (these are made at the Philadelphia Mint and may be purchased there). The function of a Mint is the coining of money; the spending or saving of it is up to you, the people.

* * *

*Footnote: Since July 1962, uncirculated coin sets (10 coins: 5 made in Denver, and 5 made in Philadelphia) have been for sale at the Denver Mint at \$2.40 a set. Since August 1962, proof sets also have been for sale at the Denver Mint--\$2.10 a set. All sales are on an over-the-counter basis, no mail orders being accepted here. The coin window is open from 8:00 a.m. to 3:00 p.m.

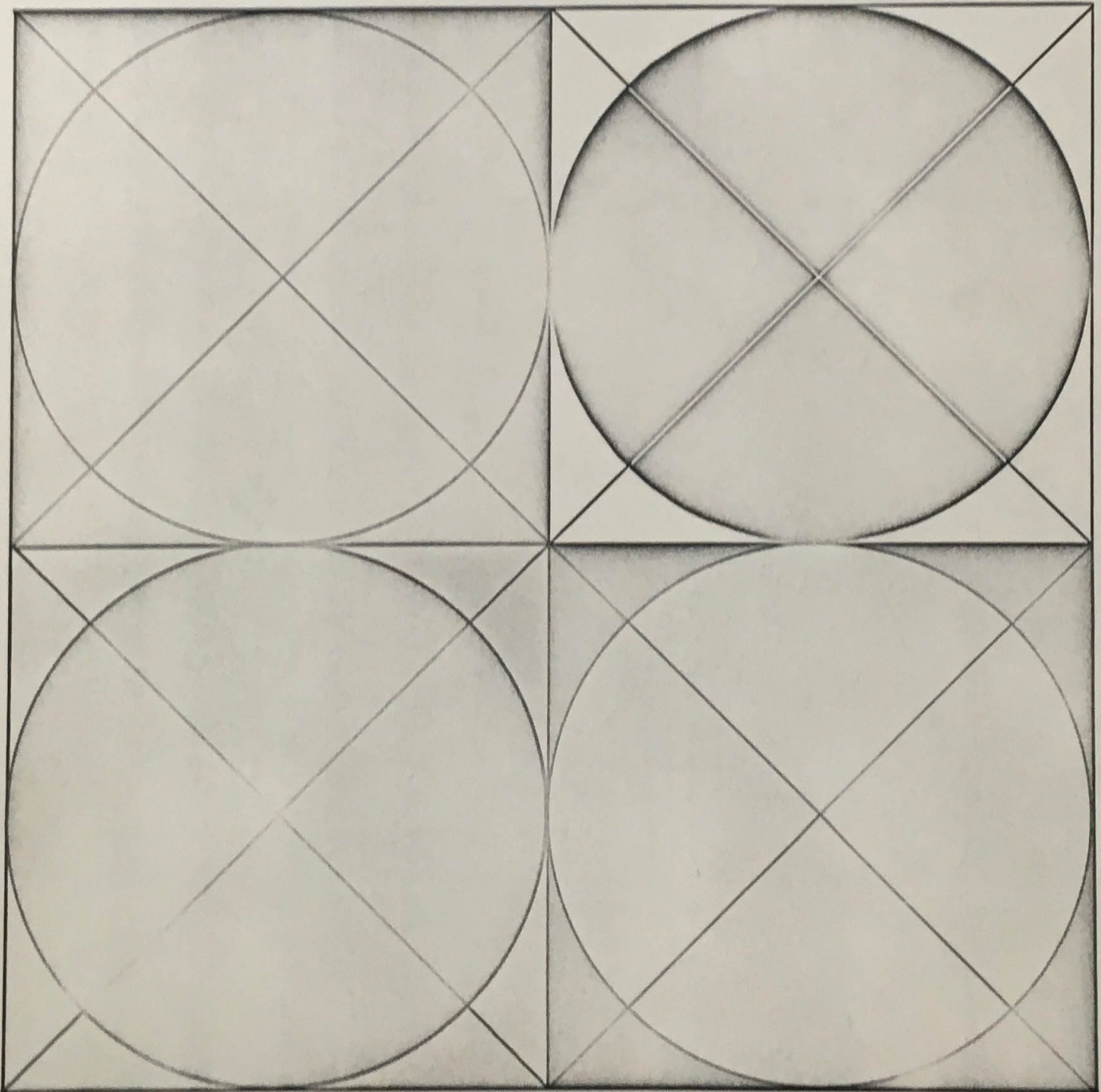
U. S. MINT COINAGE MANUFACTURING PROCESSES SHOWING WEIGHING BETWEEN PROCESSES



AUDIOVISUAL INSTRUCTION

Published by the Department of Audiovisual Instruction, NEA

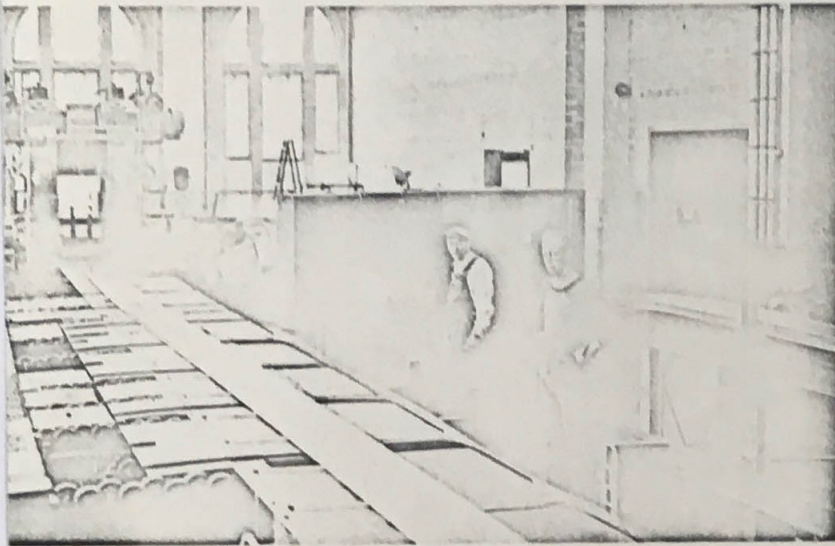
OCTOBER 1962



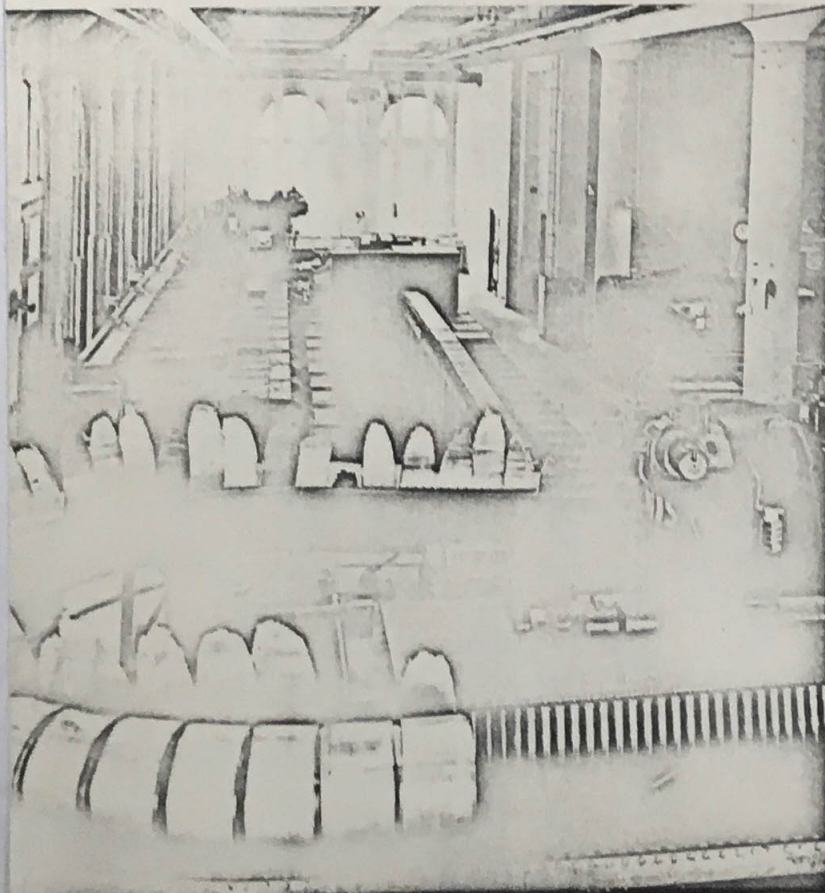
The New School

Convention Study

The Denver Mint as seen from the visitor's balcony



The long strips of metal above—which moments ago were 420-pound ingots—will soon be coins. They are shown here as they emerge from a rolling mill powered by a 350-horsepower electric motor that exerts 700,000 pounds of pressure. Several other processes transform the strips into the coils shown below which are fed into automatic punch presses.



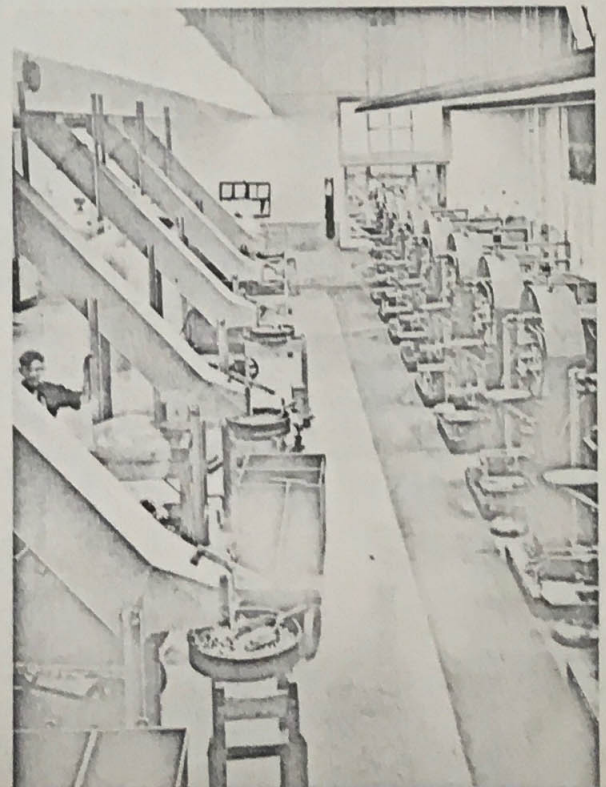
BEHIND THE SEDATE STRUCTURE housing the U.S. Mint in Denver lies a colorful slice of history that goes back a hundred years to the first discovery of gold in what is now the state of Colorado. The first signs of the precious metal appeared on the Platte River near the present city of Denver in 1858, then a year later, near what is now Central City.

At about this time the California Gold Rush of '49 was losing its impetus and miners turned their attention to the discovery sites in Colorado. There, within a few years a small village of cottonwood logs began to appear. This was Denver a century ago.

"Pikes Peak or Bust" was the rallying cry of these early settlers. Barter became the order of the day. A pinch of gold dust was said to be worth 25 cents, and in place of wallets the settlers carried small scales and pokes for their gold dust and nuggets.

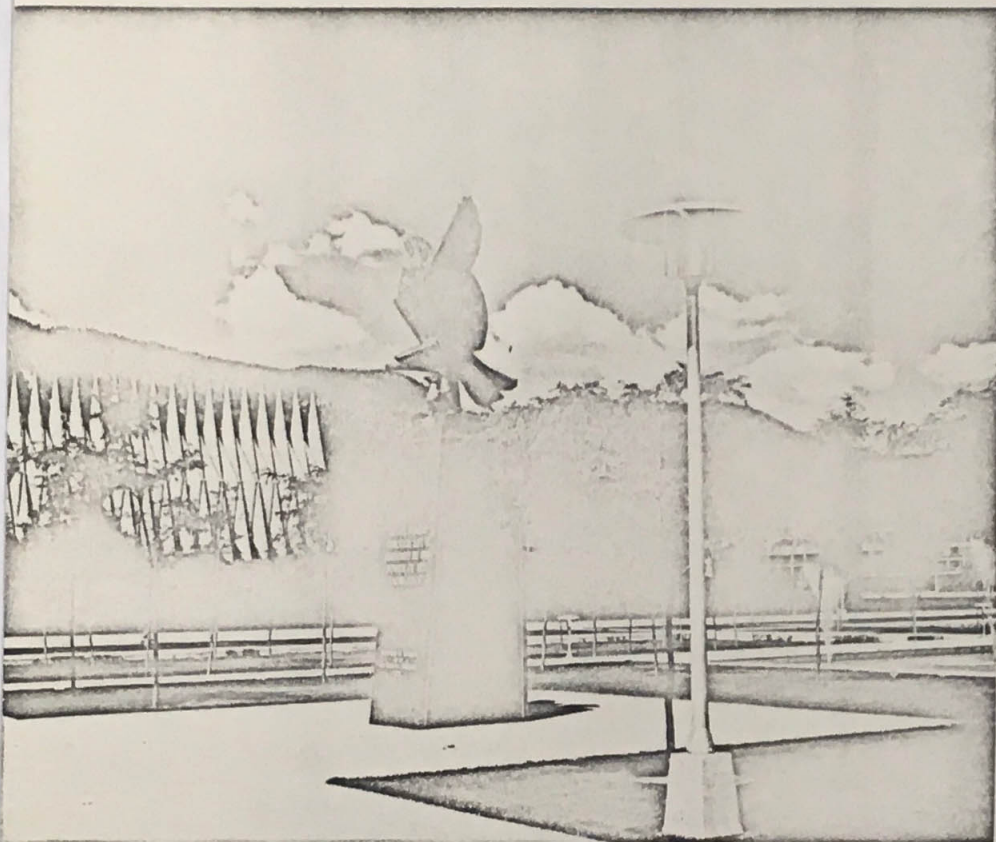
Recognizing the need for a circulating medium, several firms in Colorado organized themselves as private
(See page 574)

From the press room balcony, blank coins are delivered to the press room where they are stamped by 29 presses like those shown on the right.



Trips 1962-63

The Air Force Academy and Its Audiovisual Program



The 17-spired Air Force Academy chapel reaches skyward against the backdrop of the Rampart Range of the Rocky Mountains. In the foreground, the Air Training Command-donated Eagle and Eaglets statue constantly reminds the Air Force Cadet Wing that "man's flight through life is sustained by the power of his knowledge." At right are the Academy's Air Gardens with reflecting pools and tree-lined walks. In the right background, through the trees, can be seen portions of the Cadet Dormitory, Vandenberg Hall.

Lt. Col. William C. Flannigan gives this description of the audiovisual program which DAVI members are invited to inspect in Colorado Springs. Colonel Flannigan is director of audiovisual services for the Academy.

THE AIR FORCE ACADEMY is one of the major air commands in the United States Air Force; however, it is unique in that the entire command is located at one base. Because of the one-base command, it was decided the audiovisual section should be under one head. Prior to this, draftsmen, illustrators, photographers, etc., were assigned to the various services of the Academy, but at no place was there one central collection of such talent.

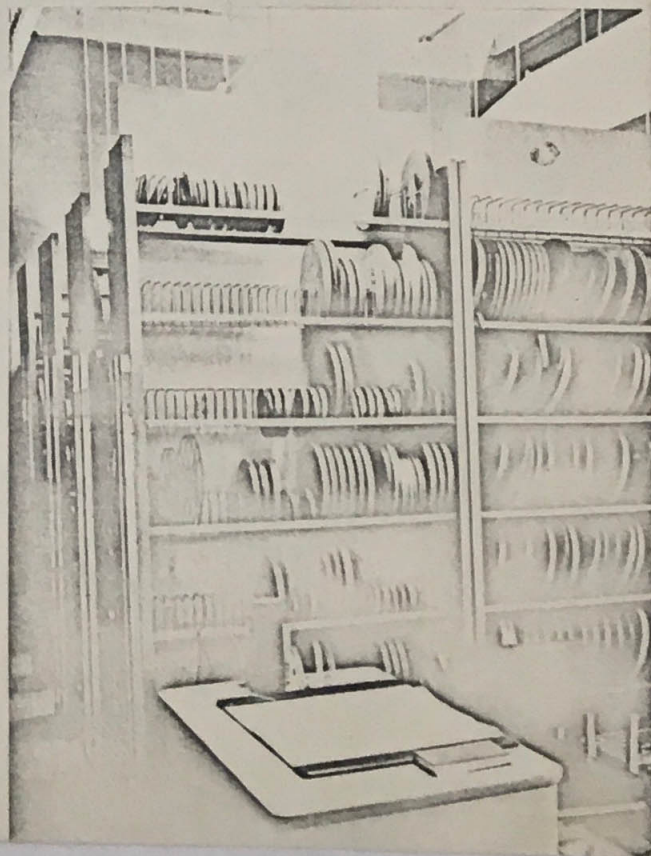
The organization now consists of three basic divisions within the Directorate of Audiovisual Services: the Training Devices Division; the Graphics Division; and the Branch Film Library. Although the directorate is assigned to the Dean of Faculty, it services the entire command.

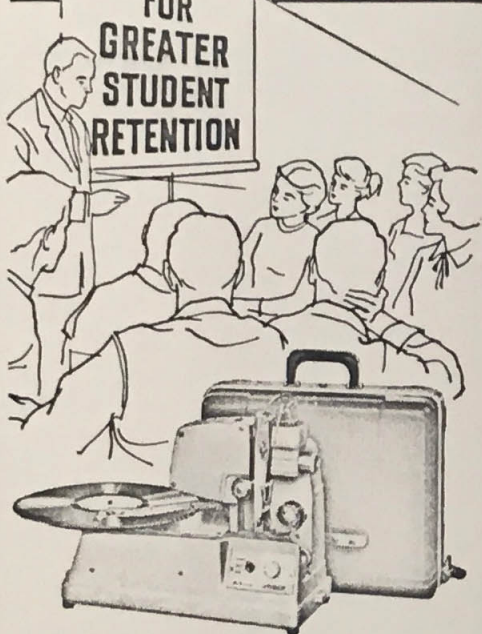
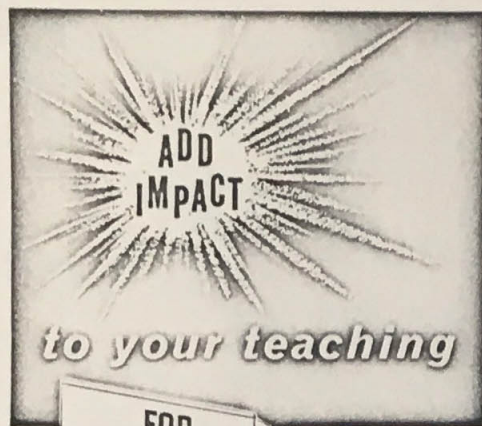
(See page 575)

Graphics Division



Branch Film Library

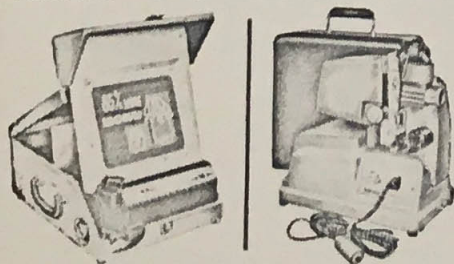




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The Denver Mint

(Continued from page 572)

mint. They melted raw gold in the form of dust and nuggets (all of which contained an appreciable amount of silver) and formed it into what history now refers to as Pikes Peak coins.

The director of the United States Mint, then headquartered in Philadelphia, took a hard look at these new gold coins, produced mainly by three Colorado firms: Clark, Gruber & Co., John Parsons & Co., and John Conway & Co. In his annual report the director mentioned that he had arranged to have a \$10 gold piece assayed and found it to have a net value of only \$7.25. A five-dollar gold piece issued by John Parsons was found to have a net value of \$4.20.

As a result, Congress in January 1862 proposed that a branch mint be established at Denver. That fall the government bought the Clark-Gruber plant for \$25,000 and operated it for some years as an "assay" mint. Its activities were restricted to melting and stamping bullion brought in by miners without refining.

When, in 1877, the Clark-Gruber plant was reported as being so dilapidated as to be considered unsafe, the government started plans for a new mint. Moving day took place September 1, 1904, when the mint transferred its operations from the historic building at Sixteenth and Market Street to the present Gothic Renaissance structure at West Colfax and Evans Streets.

In the vestibule there, visitors will see three murals by the Italian painter, Vincent Adriente. They will also see a mosaic replica of the Great Seal of the United States in the center of the vestibule floor. (In the summer of 1961 the original metal seal had worn so smooth it was considered unsafe and had to be replaced.) From the visitors' balconies constructed on each of the first two floors, spectators can look down on money-making operations below.

They see the large metal ingots removed from electric furnaces and prepared for the rolling mills, from which they emerge in strips ¼ inch thick, 12¼ inches wide, and 37 feet long. Several other processes transform the strips into coils which are fed into automatic punch presses. Each punch press runs at the rate of 250 strokes per minute with each stroke producing eight cents, seven nickels, eight dimes, six quarters, or five halves.

These blank coins are delivered to the press room balcony where they are dumped into chutes extending into a press room equipped with 29 presses, one dating back to 1876 and others to 1906 when they were first built at Philadelphia for the Denver Mint.

It takes 30 tons of pressure to stamp a cent or a dime, 60 tons for a quarter, 75 tons for a nickel, and 100 tons for a fifty-cent piece. As the coins roll into the hopper, a man with a magnifying glass inspects one, two, or three coins intermittently. The finished coins are sent to the counting section where they are counted, sacked, and weighed. When filled, the bags are sewn at the top by a handsewing machine and stored in vaults pending orders from Washington, D.C.—from *Historical Highlights*, issued by the U.S. Mint at Denver.

[The mint is located within easy walking distance from the Denver-Hilton Hotel, headquarters for the 1962-63 DAVI Convention, April 22-26. E. V. Schaefer, audiovisual director, Washington High School, Denver, is chairman of the study trip committee. The four other study trips planned include (1) the Museum of National History; (2) the Esquire Data Processing Plant; (3) a photographic tour of Central City; and (4) the Denver educational television station, KRMA TV6—Educational Channel, Denver Public Schools.]

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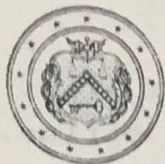
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UNITED STATES MINT

TREASURY DEPARTMENT

UNITED STATES MINT SERVICE

DENVER 4, COLO.

BM-27
(3/63)

THE UNITED STATES MINT AT DENVER, COLORADO

Gold was first discovered in 1858 in what is now the State of Colorado, on the Platte River, near the City of Denver. For some years mining in Colorado, then embraced in the State of Kansas, was chiefly from placer claims which were deposits formed by water currents in river beds. J. H. Gregory found lode gold, however, near present Central City, Colorado, on May 6, 1859, and other discoveries followed.

When the California Gold Rush of '49 lost its impetus with the declining production of mines in California, miners turned their attention to Denver City where, within a few years, a small village of cottonwood log cabins began to emerge. This town became an "outfitting" point for the miners whose wagons had ploughed through the foothills of the Rockies for Pikes Peak. The discovery of gold in that area brought its first Anglo-Saxon settlements.

Recognizing a need for a circulating medium, much as necessity is the mother of invention, several firms in Colorado organized themselves as private mints. They melted "raw" gold in the form of dust and nuggets (all of which contained an appreciable amount of silver) and formed it into what are now known as Pikes Peak coins. These were much like some of the gold coins struck privately in California some years previously.

The Congress, in January 1862, received a proposal from the Treasury Department that a branch mint be established at Denver, Colorado, for gold coinage. As indicative of the need they were informed that in the two preceding years the private mint of Clark, Gruber & Co. had turned out gold coins to the extent of \$120,000. The Government bought the Clark-Gruber plant in the fall of 1862, for the sum of \$25,000.

In the early days of Denver, when Indian raids were anticipated, the mint building was used as a place of refuge for women and children, it being the town's most substantial structure. "The hostility of the Indian tribes along the routes, doubtless instigated by rebel emissaries (there being a Civil War) and bad white men", was one of the reasons given by the Director of the Mint for the Denver plant not being able to assume its position as a Branch Mint.

Not to achieve its destiny as a mint until some years later, the Denver Mint opened its doors in September 1863 as an assay office. Its activities were restricted to melting and stamping bullion brought in by miners without refining. Under the regulations which were prescribed, the mint was to accomplish this task "within a day or an hour" after it was received. The bars were to be stamped as to the "fineness" (amount of gold and silver contained) and weight. Also stamped on the bars was a device bearing the American eagle and around it the words "U. S. Branch Mint, Denver."

By 1867 the miners had exhausted, to a large extent, the rich beds of placer gold appearing in the streams, and the assay office at Denver had little business while miners turned their attention to "lode" mining, uncovering underground veins of ores having a high percentage of gold and silver. It was found, however, that to crush and pulverize these ores and to extract the precious metals required complicated apparatus and skilled labor, as well as rail transportation, all of which was lacking to a large extent.

Heartbroken as they were to see the Union Pacific railroad pass them to the north, a courageous group of Colorado citizens banded together. Through their enterprise a rail line was built in 1870 which connected Denver with Cheyenne, Wyoming, tying them in with the economic life of the nation, from coast to coast.

In the late nineteenth century Colorado felt the effect of an acceleration in silver mining because of Government purchasing programs. When they were terminated, the abrupt reduction in silver output was offset by the rise of the great gold camp at Cripple Creek, Colorado.

The Clark-Gruber plant which the Government had used continuously began to deteriorate and in 1877 was reported as being so dilapidated as to be considered unsafe.

Hopes for a branch mint status were again kindled, when on February 20, 1895 the Congress provided for the establishment of a mint at Denver for the coinage of gold and silver. A \$500,000 appropriation by the Congress provided that until it could become a mint in accordance with law it would have to operate as an assay office.

On April 22, 1896 a site was purchased at a cost of about \$60,000.

In the meantime, the deposit activity at the Denver Mint stepped up considerably, due to the number of bars deposited by mills employing the cyanide and chlorination processes of treatment. The source of the deposits was principally the mines of Arizona,

New Mexico, Colorado and Utah. In 1895 the aggregate value of gold and silver deposited annually was in excess of \$5.6 million.

Plans for the new mint developed slowly, but surely. Moving day took place on September 1, 1904 when the mint transferred its operations from the historic Clark-Gruber building at Sixteenth and Market Streets to the handsome Gothical Renaissance structure at West Colfax and Evans Streets.

Coinage organization was effected by the naming of officials for the superintendency and various departments on October 15, 1904. Earlier it had been the practice for Denver to send its bullion deposits to Philadelphia for parting and refining. Bullion shipments to Philadelphia ceased December 31, 1904.

The new structure, viewed from the street, provided two stories above ground. Actually it had five floors. It was 175 feet long and 100 feet wide.

The stone facing of the building is Colorado granite, up to and including the water table. The Arkins granite above that, to the cornice (which required large slabs), was procured in Maine. Tennessee marble forms the window trimmings; and the marble used in the interior finish was obtained in Vermont.

The decorations of the main corridor on the first floor, the mezzanine floor, and the second floor were completed in 1909 under the direction of John Gibson, a member of an old Philadelphia firm. This firm also furnished the three mural paintings in the area above the cornice inside the main vestibule. They are the work of an Italian named Vincent Adriente, who worked under the supervision of the celebrated mural artist Edwin Howland Blashfield of New York City. The paintings are purely symbolic and typify Commerce, Mining and Manufacturing.

The Great Seal of the United States, in the form of a large metal casting, was placed in the center of the vestibule floor. In the summer of 1961 this seal had worn so smooth it was considered unsafe and was replaced by a mosaic replica.

The new mint was equipped with all of the latest methods and machinery, the coinage apparatus having been built at Philadelphia where a large part of the machinery used by the mints was made.

In its first year of operation the Coining Room turned out gold coin valued at \$23.8 million, and subsidiary coin (halves, quarters and dimes) amounting to \$3.2 million.

By act of Congress the mint has had authority since 1874 to strike coins for friendly foreign governments. In 1906 the Denver Mint started its first production of foreign coinage--4.8 million five peso gold pieces for the Government of Mexico.

The Mint Act of 1873 (which codified all existing mint law) had restricted the manufacture of nickels and cents to the mint at Philadelphia. At the time that act was passed, few if any of these coins were in use in the West, although by legislation in 1906 Congress gave recognition to the fact they were then in circulation all over the country. The Secretary of the Treasury was then authorized to direct the coinage of nickels and cents at any of the mints. Minor coinage started at the Denver Mint in 1911, the production of cents that year amounting to 12.6 million pieces. The bulk of cents and nickels being distributed throughout the country now come from Denver. In 1962 this mint produced over 1.8 billion cents and 280 million nickels.

Contrary to the policy of the European mints it has always been the practice in the United States to conduct refineries in connection with coinage operations, thus being enabled to receive crude bullion.

The installation of a refinery at the Denver Mint in 1906 was itself as momentous as its commencement of coinage. In its first six months of operations the new Denver refinery turned out refined gold and silver valued at \$32 million. Operating through the years, it has contributed substantially to the total output of refined gold and silver of the Mint. Although the refining at the Denver Mint has been suspended temporarily, it is planned to resume these operations.

In 1937 an addition was made to the Denver Mint, covering an area of approximately 6,000 square feet and consisting of a basement and two stories. The old building was remodeled and 10 coining presses, with bak-up equipment, were installed.

In October 1945 ground was broken for a three story addition, 161 feet long by 96 feet wide. The cost of this addition was over a million and a half dollars. The new wing was built to house modern "brass mill" melting and rolling equipment. The rolling system and equipment, designed by one of the foremost rolling mill engineering firms in the nation, was engineered to process a bronze coinage ingot weighing 420 pounds.

Out of consideration for an interested public, a visitor's balcony was constructed in each of the first two floors, suspended under the 24 foot ceilings, from which spectators may look down on money-making operations.

MELTING & REFINING DIVISION

Make-Up Section. Here the raw materials going into coinage are assembled and weighed out to the proper alloys: 95% copper plus 5% zinc for cents; 25% nickel and 75% copper for nickels; and 90% silver and 10% copper for silver coins. It is delivered to the ingot room in "tote boxes", each box containing sufficient metal to completely charge a furnace.

Ingot Room. This room is equipped with 8 electric furnaces. In an eight hour day one furnace can produce 11 bronze, 10 cupro-nickel, or 15 silver ingots. When the metal has gone through the prescribed melting cycle it is poured through runner boxes into water-cooled molds. Removed from the molds, the ingots are quenched in a water tank to remove contained heat, so that they can be cleaned, topped (rough ends cut off) and stacked for delivery to the coiner.

The ingots are 60" long, 12-7/16" wide and 1-3/4" thick. The ingots for nickels and cents each weigh about 420 pounds and the silver ingots weigh 480 pounds.

COINING DIVISION

Rolling Room. The large ingots are passed through a breakdown rolling mill, usually in rounds of twelve. The mill is powered by a 350 horsepower electric motor which exerts 700,000 pounds of pressure. After receiving from 12 to 15 passes the ingots have been formed into a strip 1/4 inch thick, 12-1/4 inches wide and 37 feet long.

The reduction of the metal in rolling makes the nickel and silver slabs so hard they must be annealed (or softened) in a slab annealing furnace.

The strips then go to a finishing mill where they are again subjected to rolling to the desired thickness, usually requiring from six to nine passes. The strips, now approximately 225 feet long, are rolled into coils; each coil is then split into two coils, each being 5-7/8 inches wide.

Blanking. The coils are fed into automatic punch presses, where the planchets, or blanks, for the coins are cut out. Each punch press runs at the rate of 250 strokes per minute and with each stroke it produces 8 cents, 7 nickels, 8 dimes, 6 quarters or 5 halves. This is why four punch presses can keep up with 29 coinage presses. Each punch press is equipped with a chopper to cut up the unused portion of the strips. These "clips" fall into a tote box on a dolly underneath the chopper and are returned to the Melting and Refining Division for re-melting.

Blank Annealing and Cleaning. Here again the metal is softened by annealing in gas furnaces and the blanks are cleansed for further processing.

Press Room. A raised edge on the blanks is made by subjecting them to a side-rolling operation in an upsetting mill.

The upset blanks are given close inspection and, in the case of silver coins, such weighing as may be necessary by automatic scales.

The press room is equipped with 29 presses. One of these presses dates back to 1876 and others to 1906 when they were first built at Philadelphia for the Denver Mint.

The blanks are delivered to the press room balcony where they are dumped into chutes extending into the press room. There are six chutes on the east side of the room to service 12 presses and 4 chutes on the other side.

The blanks fall into containers, each holding about 2,500 ounces of blanks, which are then scoop-fed to feederhoppers on the presses.

Production of cents, nickels and dimes is 100% by dual stamping.

One press stamps as many as 270 cents in one minute.

It takes 30 tons of pressure to stamp a cent or a dime, 60 tons for a quarter, 75 tons for a nickel, and 100 tons for a fifty cent piece.

As the coins roll out into the hopper, a man with a magnifying glass inspects one, two or three coins, intermittently, in case there might be some imperfection. If he sees none, the hopper is emptied into a big metal box, but if he finds any defective coins, he checks further in the hopper and sends back all imperfections to be remelted.

The dies for the stamping machines are made in Philadelphia from a master die. A die will last $1\frac{1}{2}$ million strikes for 1-cent pieces, 400,000 strikes for a nickel, and 700,000 or 800,000 strikes for silver coins. When a die is worn out it is destroyed.

Counting Room. The finished coins are sent to the counting section. Here the coins are counted, sacked and weighed. Each of ten automatic counters counts coins at the rate of 2,000 a minute, going into bags. The bags when filled are sewn at the

top by a hand sewing machine. Fifty dollars in cents, \$200 in nickels and \$1,000 in dimes, quarters and halves are packed into the bags.

The sacks of coins are stored in vaults until orders come from the Director of the Mint in Washington, D. C., for shipment to the 12 Federal Reserve Banks and their 24 branches, as well as to the Treasury Department in Washington --- from where the local banks all over the nation obtain their currency.

High

Mr. Rotello - (etc.):

May I express my thanks to you for asking me to appear on your program this evening. I realize that all of you here are primarily interested in the study and history of our coins, and, although I too have become more interested since my appointment as Superintendent of the Denver Mint, I have not had the time to study numismatics; consequently, my remarks tonight will concern facts and history of the Denver Mint.

INTRODUCTION

During the growth of the Mint an offshoot sprouted which, today, is the giant branch called Numismatics. Although it is still nourished by the Mint, one is apt to overlook the "tree" and become engrossed in the "branch". However, as dull as the Mint might seem, many historical tales, interesting facts, and humorous stories can be told concerning this old institution.

HISTORY

The Denver Mint opened its doors in September 1863 as an Assay Office, but it did not operate as a Mint until some years later. As an Assay Office its activities were restricted to melting and stamping bullion brought in by

the miners, without refining. It was not until February 1895 that Congress provided for the establishment of a Mint at Denver for the coinage of gold and silver. In the meantime the old Clark-Gruber plant, which the Government had purchased in 1862, had begun deteriorating, consequently Congress provided money for a new building and a new site. On September 1, 1904 the Mint transferred its operations from the old building at 16th and Market to its present site, but the coinage program did not commence until February 1906. Additions to the original building were completed in 1936, 1946, and 1965. The building, viewed from the street, gives the impression of being two stories high; actually, there are five floors.

PRODUCTION

Although the number of presses increased from 3 to 56 in the period 1906 to the present, the output is far from commensurate. Production in 1906 was close to 168,000,000 pieces, whereas we were averaging three billion up to 1968. Nineteen sixty-nine was a banner year; we broke an all-time record, with an output of over five billion coins (for which we were cited). Our daily production averages between 20- and 22- million coins. We are proud too of the fact that the Denver Mint produces between

70 and 75 percent of the Nation's coins, turning out more than the combined amount from the Philadelphia Mint and the San Francisco Assay Office.

FOREIGN COINAGE

Mint officials from all over the world come to see our operations. To name a few: Mint Directors from Peru, Mexico, Canada, Australia, and, most recently, Japan. You may know that we make coins for friendly governments. The initial negotiations for the manufacture of these coins are handled by the State Department and usually involves the State Department's goal in establishing and maintaining friendly relations with certain governments. Upon receiving a request from the State Department, the Mint estimates the cost of production and submits a bid, which may be in competition with other governments--like England, Canada, Switzerland, Germany, and others. However, the Mint seldom makes coins for governments which have established Mints of their own. We do not actively seek the business of making coins for other governments, but merely comply with friendly governments' requests after they have made arrangements through the State Department. Nor, do we seek a profit from the manufacture of foreign coins. Currently, along with our domestic coinage (and, of course, it comes first) we are making coins for Mexico and Brazil. Foreign governments for whom

we have made coins in the past include Mexico, Panama, El Salvador, the Philippines, Liberia, Peru, and Brazil.

RELATIONSHIP TO NUMISMATICS

From the many inquiries we receive regarding coins it would seem that the Mint is a competitor of the coin dealer. However, the only coins sold by the Government directly to individuals are the Special Mint Sets, the Proof Sets, and the Uncirculated Sets. (Currently, we have for sale on an over-the-counter basis, the 1965 and the 1966 Special Mint Sets--which sell for \$4.00 a set.) I might add also that the Mint is not in the banking business; newly-minted coins can be released only to the Federal Reserve Banks. Likewise, Federal Reserve Banks do not deal with the public; they deal solely with their member banks.

PUBLIC CONTACT

Our contact with the public is most satisfying; it keeps us, bound as we are by bars and fences, from becoming ingrown. We receive hundreds of letters and welcome thousands of tourists.

As one might expect, our mail comes from every State in the Nation. Aside from business letters, the mail can be classified as coin letters,

tour letters, and eccentric letters. The volume of coin letters swells every time there is a newspaper article which might indicate we have something new to sell; the tour letters grow as summer approaches; and the eccentric letters, though sparse, are ever with us. We particularly enjoy the letters written by children; their wording is so fresh and natural-- from "Hello dear Mint" to the sign-off "the Girl with the Long, Blonde Hair." I would like to share with you a few letters received from children.

(reads)

Tour letters are just that, and, for the most part, are prompted by the mistaken idea that one must make a reservation for a tour (we dispensed with that system in 1952). The erratic letter: well, we have received everything from dead beetles to a dried breakfast roll!

COMMEMORATIVE COINS AND MEDALS

You may be interested in knowing that no commemorative coins have been authorized since 1951 and none have been minted since 1954. However, medals of each President, Secretary of the Treasury, and Director of the Mint are produced and sold at the Mint in Philadelphia. Many miscellaneous medals are also available. A list of medals and prices, and an order form, may be obtained by writing to the United States Mint, Philadelphia, Pa. 19106.

I would like to mention here that the Mints should not be confused with the Bureau of Printing and Engraving, in Washington, where all our paper money is made. The minting of coins is one of the United States' most successful businesses and brings to the U. S. Treasury a considerable profit. I would also like to make a comment concerning mutilated and uncurrent coins. These are returned to the Mint by the banks, for redemption. They are paid for on the basis of the weight of the metal they contain; they are then melted and recoinced.

CONTENT OF COINS

As you possibly know, the Coinage Act, passed July 23, 1965, changed the composition of the dime, quarter, and half dollar. These denominations formerly contained 90 percent silver and 10 percent copper. All silver was eliminated from the dime and quarter and the percentage substantially reduced in the half dollar. The dime and quarter are manufactured from strips composed of three layers of metal bonded together and rolled to the required thickness. This is called "cladding." The face is 75 percent copper and 25 percent nickel and the core is pure copper, which is visible on the edges of the coins. The half dollar is also a composite coin with the silver

content reduced from 90 percent to 40 percent. The 5-cent coins are cupro-nickel pieces composed of 75 percent copper and 25 percent nickel. Our cents are bronze and contain 95 percent copper and 5 percent zinc.

DATES ON COINS

Traditionally, all United States coins have been dated the year of their coinage. This policy was interrupted, however, because of the coin shortage. As a result, Congress passed legislation so that after the calendar year 1964 coinage was produced, we could still use the 1964 date. Starting in 1965, therefore, all denominations of United States coinage continued to be struck with the 1964 date. When the Coinage Act of 1965 was passed, it became mandatory that we continue to use the 1964 date on all 90 percent silver coin (halves, quarters, and dimes). Therefore, all the 90 percent silver coin which we manufactured in 1964, 1965, and 1966, bears the 1964 date. The Coinage Act of 1965 also made it mandatory that the clad coins be dated not earlier than 1965.

INTERESTING, MISCELLANEOUS ITEMS IN DENVER MINT OPERATIONS

Dies: The dies for our stamping machines are made from a master die at the Philadelphia Mint. When a die is worn out it is taken off and mutilated with an arc welder.

All denominations are counted and bagged preparatory to shipment to the Federal Reserve Banks. The sacks of coins are then stored in vaults until orders come from the Bureau of the Mint in Washington, D. C., to ship them to the various Federal Reserve Banks--from where the local banks all over the nation obtain their currency.

Waste: Waste is virtually unknown in the Mint. The staff goes to great lengths to reclaim every particle of valuable dust that might otherwise escape and never be reclaimed. Even the water from the showers and the basins flows into a large tank which is periodically cleaned out; any residue is then added to the sweeps--which amounts to several thousand dollars each year. In 1936, when some of the walls and floors were dismantled to make way for new construction and enlarging of the storage vaults, approximately \$67,000 in gold sweeps was recovered.

DENVER MINT

by

Les Southern

The sharp crack of a pistol shot split the morning air, followed by another report, both echoing off the buildings on West Colfax Avenue. Then, the December morning thundered with pistol, rifle, and shotgun blasts. Ricocheting bullets whined down the Denver streets, some thudding against brick buildings, others noisily shattering plate glass windows. It was December 18, 1922, and Denver's "crime of the century" was under way. The United States Mint was being robbed.

Guards transferring \$200,000 in 5-dollar bills to a waiting truck had been ambushed by a car full of desperate gunmen wielding shotguns and pistols. Charles T. Linton, one of the guards, bravely fired at the holdup men but was cut down by a revolver bullet. In the confusion that followed, the gunmen scooped up the packages of currency while engaging in a heated exchange of bullets and shotgun pellets. One of them, fatally wounded, staggered back to the car and slumped in the front seat. Another, bleeding profusely from wounds in the foot and left hand, still managed to pluck the last bundle of cash from the pavement and dash to the getaway car. Less than two minutes after the first shot had been fired there was a screech of tires and the roar of a racing automobile engine and it was all over.

Since the first coins rolled from its presses in 1906, the U. S. Mint in Denver has held a certain fascination for most people. Its well-guarded,

foreboding structure represents wealth of almost unimaginable proportions. Behind the gray granite walls and iron doors the inner vaults of the Mint shelter a store of gold bullion second only to Fort Knox. It would be inconceivable to house such treasure in such an unsecretive manner and not have someone, somewhere, consider the possibility of getting some of it out.

Mrs. Fern V. Miller, the present superintendent of the Denver Mint, points out that although the 1922 robbery occurred at the front door of the Mint it involved no funds of the United States Mint. The money stolen was paper currency stored for the Denver Branch of the Federal Reserve Bank of Kansas City. Many bank vaults in the Denver area were inadequate in those days, so the fortress-like Mint Building was used to store large amounts of currency.

Realistically though, it was a Mint robbery. It was performed at the Mint, with Mint personnel engaging in the gunfight. The non-Federal technicality only hampered investigation of a case that, until this day, remains unsolved in the minds of most.

The weeks following the robbery brought the Denver Police Department many "hot tips," but few real facts. The wounded guard died two hours after the robbery, and the frozen body of one of the gunmen was found in the stolen getaway car, locked in an east Denver garage, three weeks later, but the rest of the gang had vanished. The stolen money was traced to St. Paul, Minn., but it was never recovered. Although police records determined the case officially closed in 1934, there have never been any arrests or convictions.

Things have quieted down a lot in the Mint building at West Colfax and Cherokee Street in the ensuing 45 years. The stone facing around the old Colfax entrance still bears the scars of that famous gun battle, but, to this day, it has been the last attempt at armed assault on Denver's "money factory."

There are still those who want the Mint's gold and silver, but it has taken on more of a political type of "larceny" than the violent theft of 1922. In the past five years, 21 bills have been introduced in Congress in an effort to place the Mint in some other Congressman's territory. The Mint's annual two-million-dollar payroll and its yearly half-a-million dollar service and supply purchase wouldn't look bad on any Congressman's record. So far, all the bills have been turned down.

Denver's central geographic location has always been a deciding factor in keeping the Mint here. It was one of the primary reasons for establishing a United States Mint in the near wilderness of the western frontier over a century ago.

In 1862, supported by the mineral wealth of the Rocky Mountains, assaying, refining, and coin-making had already become a substantial business. Three private firms, Clark Gruber & Co., J. J. Conway Co., and the John Parson Co., were actively engaged in refining and minting gold coins in the denominations of \$2½, \$5.00, \$10.00, and \$20.00. Private enterprise had demonstrated the practical economics of the minting business in Denver, so the United States Government decided to try its hand.

1892
On November 25, 1892, the Clark Gruber Mint at 16th and Market Place was purchased by the Secretary of the U. S. Treasury. In its first several years of operation by the Government the Clark Gruber plant acted only as an assaying, melting and refining Mint. No United States coins were made. In 1895, Congress finally passed an act to establish a coin-producing Mint in Denver. In July of 1897 construction of the new Mint began at its present location, but it was 1906 before coin operations got under way.

From this slow, uncertain beginning the Denver Mint has grown to, and maintained the status of, the most productive Mint in the world. It still has the look, decor, and even some of the machinery of the last century, but its efficiency rates with any space age project in operation today.

Efficiency isn't just theory at the Denver Mint; it is everyday practice. Although the principal refinery operation has now been discontinued, as a sacrifice to the crash coinage program of recent years, elaborate measures were once taken to reclaim valuable metal dust present in the Melting & Refining Department. Showers and wash basins drain into a common tank that is periodically drained and the metal particles recovered. These are stored with the ashes of employees' gloves that are burned along with cleaning rags used to clean the machinery. Even the dirt that is swept up from the floor is saved and once or twice a year bids on these sweeps and ashes are let to metal firms. The top bidder melts the dirt and ashes to reclaim the metal dust therein.

In 1936, there was a small scale gold strike right on the premises. Some of the vaults were being enlarged and new ones built. In the con-

struction process, walls were torn out and \$67,000 worth of gold was recovered.

When the coin shortage became acute in the early part of 1964, the Denver Mint was forced to step up operations. The machinery employed at that time was already working to full capacity, so Mrs. Miller made a plea for more coin presses. Two veteran presses were located in museums in San Francisco and Carson City, Nevada. Eva Adams, Director of the Mint, Washington, D. C., ordered these renovated and sent with haste to the Denver Mint.

The San Francisco machine dated back to 1873 and the Carson City press was made in 1878, but these machines are still stamping out coins today. These only partially filled the need however, so the Government loaned the Mint Service 16 big presses from the Defense Industrial Plant at Atchison, Kansas. Nine of these presses went to the San Francisco Assay Office, and seven remained in Denver--two of which are now "retired." They are doing their part, on 24-hour shifts, in producing a fantastic 15 to 20 million coins per day.

Even while producing coins on a scale like this, the Denver Mint never lowers its guard of caution. By an intricate weighing system any production floor discrepancy can be spotted and traced immediately. This system dates back to the Mint's early history and is very effective, as the classic case of Orville Harrington, Mint employee, illustrates.

In the winter of 1919-1920, shortages of gold bullion were detected and traced to the Mint refinery. U. S. Secret Service Agent, Rowland K. Goddard

was assigned to the investigation. For days he staked out the refinery, watching for anything that might give him a clue. Finally he had a suspect. Employee Orville Harrington had been seen wrapping a gold bar, by a fellow worker. When he realized he was being watched he quickly unwrapped the bar, but it was too late. Suspicion was already cast in his direction.

Goddard had his suspect; now, he had to determine just how Harrington was managing to get something as heavy as pure gold out of the Mint undetected. He had noticed Harrington's limp but it didn't seem important until now. Goddard inquired and found that Harrington had a wooden leg. It read like cheap fiction but it was Goddard's only real lead. His hunch paid off. Harrington was arrested on February 4, 1920, with a gold bar concealed in his wooden leg. He led the Secret Service Agent to the rest of the \$90,000 in gold he had buried in the back yard of his south Denver home.

Any incident involving an attempt at breaking into the Mint's vaults would receive its rightful amount of notoriety, but there was one small "safe cracking" job that occurred in the last year and within the walls of the Superintendent's office that has never been mentioned by press or other news media. This little caper was directed by the Superintendent.

About 10 feet above the floor in her office is a 4-foot-high vault, its doors inconspicuously painted the same color as the rest of the room. From time to time since she had become Superintendent, in May of 1961, Mrs. Miller had mentioned the vault to employees but no one seemed to know what it might contain. Finally, about a year ago, the head of General Services Administration (GSA having supervision of the Mint building) told her that

some of the smaller vaults in the Mint were sometimes used to store platinum, diamonds, and other highly precious articles.

Mrs. Miller decided that this one should be opened at long last to see just what it contained. The key was located. An employee perched on a ladder tried it but the aged lock wouldn't unlatch. Curiosity reached a new high in the Superintendent's office. She ordered other employees to bore around the lock with electric drills. It was an exhausting procedure as the spinning bits slowly chewed away the thick metal door. Finally the lock fell free and the doors creaked open. The men peered inside, but, instead of precious stones or metal, the vault contained a mere few cubic yards of air, imprisoned under lock and key for an uncertain number of years.

The old Denver Mint building has become as much of a landmark to the Mile High City as the State Capitol or the County Courthouse. But, although it has sat in the same location since the turn of the century, it took the threat of moving it before it became really endeared to the city of Denver.

Progress and sentiment aren't compatible though, and the progress of this nation is such that it demands an incredible 10 billion new coins a year. Rumors are slowly becoming fact, and fact indicates that sometime in the future Denver's colorful old "coin factory" will have to make way for a new, larger, and more modern United States Mint. If and when that decision is made--and it is also allowed that the new Mint will be built in the same city as the old--it will undoubtedly be because of the reputation of unmatched efficiency under any circumstances or during any crises--which has been the hallmark of the Denver Mint.



TREASURY DEPARTMENT
WASHINGTON, D.C. 20220

OFFICE OF
DIRECTOR OF THE MINT

April 30, 1968

RECEIVED

MAY 3 - 1968

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER

Mrs. Marian N. Rossmiller
Superintendent
United States Mint
Denver, Colorado 80204

Dear Mrs. Rossmiller:

Regarding the matter on page five of "The Mint Story", we have checked and find that the information on the Mint's location at West Colfax and Evans Streets was originally obtained from the Annual Report of the Director of the Mint in 1905.

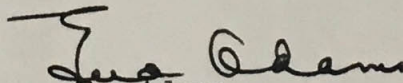
It is possible that one of the streets has had its name changed since, or that a street South of the building was eliminated at the time of expansion of the Mint.

It would be nice if you would check with the city to see if either of these events took place, and let us know your findings.

Enclosed is a copy of a diagram showing which part of the building existed in 1904, and the additions made after that date.

The duplicating and assembling of the booklet is not done by this office but by the Main Treasury Duplicating Section downstairs. The errors have been called to their attention and have since been taken care of.

Sincerely,


Eva Adams
Director of the Mint

Enclosure



Keep Freedom in Your Future With U.S. Savings Bonds

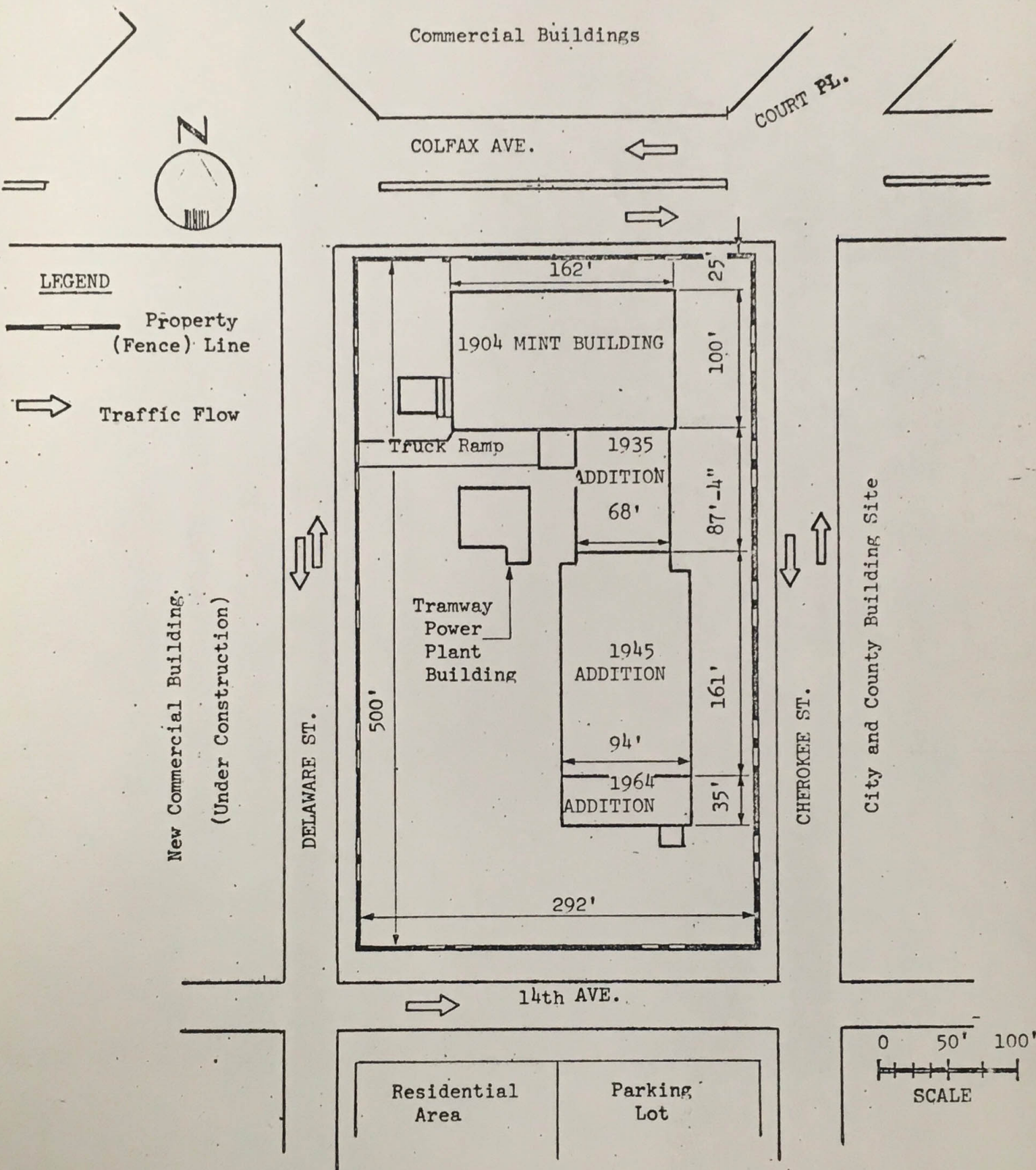


FIGURE 2.1
SITE PLOT PLAN
for
EXISTING DENVER MINT

May 7, 1968

Miss Eva Adams
Director of the Mint
Treasury Department
Washington, D. C.

Dear Miss Adams:

Regarding page five of "The Mint Story," my apologies are in order. On checking with the City Engineer's office, I received the following information:

In 1904, Colfax was known only as "Colfax Avenue; the section west of Broadway is now West Colfax. Cherokee Street was "Evans"; 14th Avenue was known as "Capitol Avenue"; and Delaware Street was known as "South 13th Street."

Since this booklet will most likely reach some tourists, perhaps the location could be clarified by saying the Denver Mint was once described as being at Colfax and Evans, whereas, now, the address is known as West Colfax and Cherokee Street. Otherwise, because we still have an East and West Evans in Denver, such a direction might send tourists out of their way--provided they were using a map of the city in locating the Mint.

I hope this straightens everything out. It was interesting to learn the names of the streets in 1904!

Sincerely yours,

(Mrs.) Marian N. Rossmiller
Superintendent



JOHN A. WALSH

REPRESENTING

THE TOOL STEEL GEAR AND PINION CO.

ELMWOOD PLACE

CINCINNATI, OHIO 45216

Area Code 513
Phone 242-1111
Teletype 810-461-2599

In Reply Please Refer to

445 EAST SECOND SOUTH
SALT LAKE CITY, UTAH 84111
AREA CODE 801
322-4800

March 3, 1970

Mrs. Betty Higby
Superintendent
Treasury Department
United States Mint
Denver, Colorado 80204

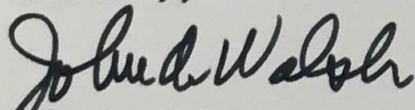
Subject: Geared Fax Article

Dear Mrs. Higby:

Enclosed is the February, 1970, issue of our company magazine Geared Fax which features the Denver Mint in an illustrated article beginning on page 6.

We thought it would be of interest to you.

Sincerely,


John A. Walsh.

Encl: FEB 70 Geared Fax.

RECEIVED

MAR 4 - 1970

OFFICE OF
SUPERINTENDENT
U. S. MINT AT DENVER



Geared Fax

Be My Valentine



February 1970

GEARED FAX

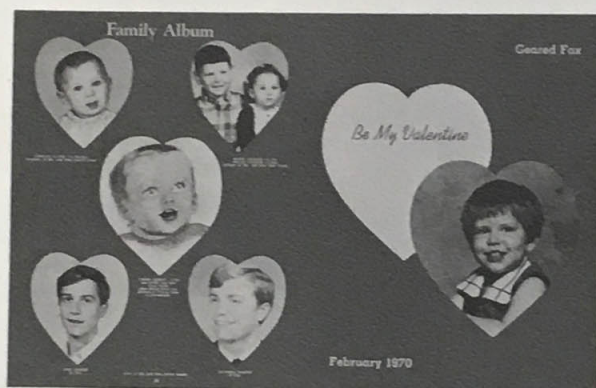
FEBRUARY 1970

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 Tate Greenwald Marlene Mulcare Bill Waits

THE TOOL STEEL GEAR & PINION CO.

211 Township Avenue
 Elmwood Place
 Cincinnati, Ohio 45216



ABOUT OUR COVER

The 2½ year-old Valentine on our cover this month is pretty Cheryl Bruce, granddaughter of Mr. and Mrs. Frank Warning. Frank, grandpa of two now, works in transportation at our Sharonville Plant.

THIRTY-EIGHT JOIN PENSION PLAN

Thirty-eight of our employees recently became members of the Pension Plan. They became eligible to join the plan because they had completed five years' service sometime in 1969. Our Pension Plan now has about 650 members including 100 retired employees. The new members are: Walter Ashley, Eugene Bachman, James Baird, James Baugh, William Bill, Norbert Brinker, William Brown, Joel Caylor, Raymond Clark, Thomas Cole, Roger Cornett, Lester Dye, Hugh Dyer, Richard Eichelbacher, Richard Fricke, Don Gaddis, Terry Garrard, Robert Goans, Glenn Hamblin, Donald Hewett, Ralph Hite, Sr., Nicholas Kretten, Charles Lawless, Robert Leininger, Conrad McAninch, Lester Montanye, Richard Packer, Phillip Pfeiffer, Robert Rauschenbach, William Saylor, Carl Thielmeyer, Richard Walcher, Theron White, Thomas Wiehe, Paul Wietmarschen, Art Wilson, Clinton Woodrum, and Mary Lou Wormus.

Sharon Christmas Baskets



Left to right, Eulys Monday, Paul Minton, Ron Overton and Butch Brinker.

This year over 3000 pounds of food were distributed by the Tool Steel employees at the Sharonville Plant to needy families in the Sharonville area. Paul Minton, Jr., who was chairman of the project this year, indicated that the employees of Tool Steel and the company contributed over \$450.00 to this very worthwhile effort. Al Ficke assisted Paul in organizing the effort.



Pictured here are the supplies for the baskets.

Their hard working volunteers included Ron Overton, Russ Reitler, Butch Brinker, Don Dryden, Ralph Hammonds, and Eulys Monday. Included in the baskets were 10 pound turkeys, 20 pound sacks of potatoes, grapefruit and bread. In addition, Coca-Cola and Pepsi-Cola contributed a substantial amount of soft drinks for the baskets. Meyers Dairy pitched in by donating a large quantity of milk to the very rewarding and worthwhile effort.



Ron Overton hands Paul Minton a bag of potatoes for one of the Christmas baskets.

Each basket weighed in excess of 100 pounds each. When the number of people in each family who received a basket is added together, over 150 individuals were able to share in the traditional Christmas dinner. Thanks to the efforts of the many Tool Steelers, in the true Christmas Spirit, who contributed both money and time to this project.

Happy Days, Helen



Helen Brady, who worked at Tool Steel longer than any woman in the history of the company, retired on January 31. She gave 46½ years of loyal and dedicated service during a career which spanned many important changes and events in the company's history.

Helen's work record is unique in that Tool Steel is the only company she ever worked for and the Stenographic Department is the only department she ever worked in. During the greater part of her career at Tool Steel, Helen was an executive secretary. In this capacity, she worked for many of our top executives through the years. She handled this confidential work efficiently and competently. She was held in the highest esteem by every executive for whom she worked. Because of the nature of her work, Helen was close to the pulse of Tool Steel. She could write an interesting book about our company's history and its growth and development.

Our company has been blessed in that it has had many loyal and dedicated employees — men and women who cared for the company as though they owned it. Helen is of this mold. She is one of our company's greatest boosters, a real ambassador of good will.

Helen has no elaborate plans for retired life but she feels retirement will give her an opportunity to do many things she's always wanted to do. She has lived in Elmwood since she was a child. She knows most of the residents of this community. She's hopeful that during her retirement she'll be able to spend more time with the many friends she has there. Helen has always been interested in her church. She wants to become more active now that she's retired. Helen has an interest in politics. She's going to get more involved in this area than she's been in the past.

Helen has worked long and faithfully. She deserves all the privileges and pleasures of retirement. The host of friends she has here at Tool Steel hope that retired life will be a happy and pleasant time for this good and charitable lady.

Good Luck, Ray



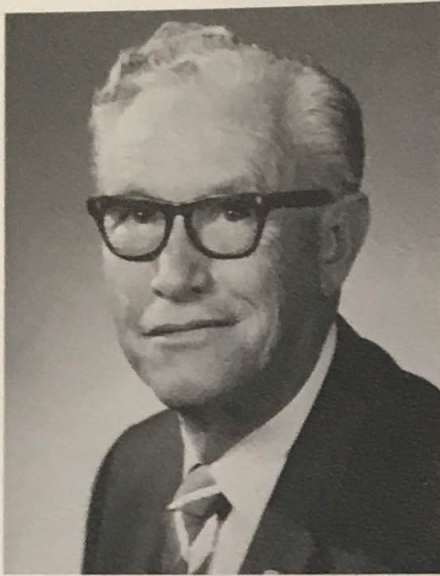
When **Ray Hight** started at Tool Steel in 1930, the time of the great depression, he never dreamed that 40 years later he'd be retiring from this same company. In those days jobs were hard to come by and if a man got a job, he never knew how long it would last. Happily for Ray and Tool Steel, this job held out and Ray became one of our retirees on January 31.

Ray started at Tool Steel in our Store Room. He worked there about five years then transferred to Yard Storage where he worked for a number of years. He was in charge of Yard Storage the last three years he worked there. From Yard Storage Ray went into the Production Department, which at that time took care of planning, routing, and methods. Ray learned the functions of this department well, performing at one time or another every job in the department. In 1942 Ray transferred to the Purchasing Department where he worked until his retirement. In the 28 years Ray worked in Purchasing, he bought millions of dollars worth of materials and supplies for the company. He enjoyed his work and he was intent on getting the best deals he could when making the many important purchases he made for the company.

Ray is a man of considerably broad interests which will serve him well in his retirement. He has served on the Arlington Heights Council for sixteen years. He was elected to another four year term this past November. Ray has been a member of Wyoming Lodge F and A M for many years. For the past 24 years he's been secretary of this lodge and he'll continue this activity in his retirement. Ray and his wife are hopeful that they'll be able to do a bit of traveling in the years ahead. It just might happen that they'll make it to Florida this year. Ray likes to work with his hands. He enjoys such things as refinishing furniture, and small remodeling jobs. He'll spend a good deal of time in this sort of activity.

Ray has earned the pleasures and happiness that go with retirement. We hope they come his way in abundance.

Have Fun, Bob



When **Bob Gerard** retired on January 31, he looked back with many fond memories on the 33 years he worked at Tool Steel. Bob is proud of his association with Tool Steel and the people who make up the company.

Bob started at Tool Steel in 1936 in Yard Storage, which, at that time, was a relatively small department. After working in the department for several years, Bob was made Supervisor of this department. He worked as Supervisor for about twenty-five years, then, because of a health problem he was having at the time, he transferred to the Personnel Department where he worked until his retirement.

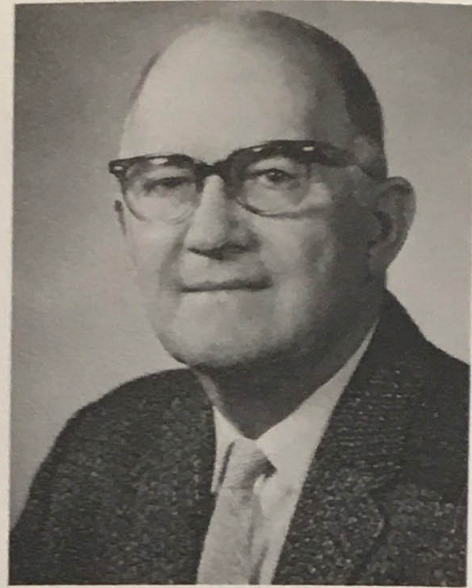
When Bob served as a Supervisor he earned the enviable reputation of being a man who had great interest and concern for the men who worked for him. Their problems were Bob's problems, their joys were his joys. He was rated a top flight guy by those who worked for him. Many of the men Bob supervised are among his good and dear friends today.

Bob Gerard was one of Tool Steel's more interesting personalities. He has a wide range of interests, he likes people, and most importantly, he has a wonderful sense of humor. Through the years Bob delighted his fellow employees with his quips, gags, and an occasional literary effort.

Bob figures to have a lot of pleasure in his retirement. Both he and his wife like to travel, so they'll be doing lots of this. Bob and his wife have an avid interest in their flower garden. It's been a hobby with them for many years. It will be an especially valuable hobby to Bob in his retirement. Reading, T.V., and keeping the homestead in shape will occupy a good deal of Bob's time. We're sure, too, that retirement will find Bob spending more time with his two grandchildren than he's been able to in the past. Keeping occupied should be no problem for Robert.

Geared Fax salutes Bob on the occasion of his retirement. Our wish is that he enjoys many years of pleasure and contentment in this new way of life.

Best Wishes, Russ



Russ Sprong, who had nearly eighteen years service with Tool Steel joined our ever growing list of retirees on January 31. Russ says he enjoyed his years at Tool Steel and that he is sorry he didn't come to Tool Steel at a younger age.

Russ is the third member of his immediate family who attained retirement age as a Tool Steel employee. Russ' father, **Carl "Sparky" Sprong**, who was a Foreman in the Packing Room and a real Tool Steel Old Timer, was 72 years of age when he passed away in 1950. Russ' brother, **Norm Sprong**, is one of our happily retired employees. He retired in January 1968.

When Russ came to Tool Steel he was hired for a night shift job in the Store Room. Russ liked the work there, performed well on his job, so he stayed in this department during his entire career at Tool Steel. He was lead man in the Store Room during most of the years he served there. Russ is, by nature, a conscientious person. His good performance in the Store Room reflected this quality.

Because he is a gentleman of the old school — mild mannered and soft spoken — Russ was a popular man with his fellow employees. The quiet dignity he has about him made him a favorite among the night shift men at the Elmwood Plant.

Russ plans to do what comes naturally in his retirement. When he was a young man he was a quite good pitcher with various semi-pro ball teams. He is still an avid baseball fan, so, as a retiree, he'll follow that sport closely. Russ lives in Northern Kentucky. His two sons and his daughter, all of whom are married, live close by. There are six grandchildren. Russ is looking forward to the opportunity to spend more time with his family. Russ is interested more than somewhat in photography. He hasn't actively pursued this hobby in recent years but now that he has the time, he's going to renew his interest.

We're sure that Russ will find plenty to keep him busy and happy in his retirement. We extend our best wishes to him.

Good Fishin', Lee



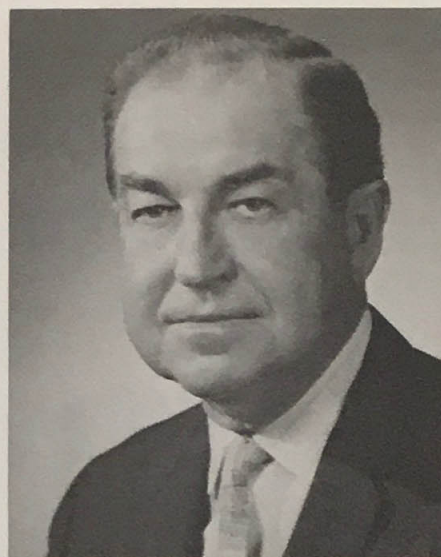
Lee Gray is looking forward to doing many things in his retirement but there's one activity that will have preference over all others. Lee is an ardent fisherman, in fact he's in love with this hobby. As a retiree he'll have time to pursue this relaxing pastime to his heart's content. Lee usually fishes around Dale Hollow and Cumberland Lake. In the past, he has gone on fishing trips that took him to Wisconsin, Minnesota, and Canada. It was on a trip to Canada that Lee had the most fun he's ever had on a fishing trip. Lee is hopeful that he'll be able to go back there some day. Whether or not he makes Canada, he will, in any event, be doing a lot of fishing.

When Lee retired on January 31, he had fourteen years service with the company. Lee started to work in the Boring Mill Department, then transferred to the Furnace Room where he worked as a heat treat helper. Lee worked in the Furnace Room for six years. In 1963 Lee went to the Store Room where he was a Tool Service man. Lee was working in this department at the time he retired. Through the years Lee compiled a good work record. He was well respected by his supervisors and his fellow employees.

Lee, who is a widower, has two daughters both of whom are married. There are five grandchildren. One daughter lives here in the city, the other lives in Spokane, Washington. It is probable that Lee will visit his daughter in Spokane in June. Lee is free to travel, so in the course of his retirement he'll probably see a good deal of the country. Lee owns a house in Carthage. Keeping the homestead in shape will occupy much of his time. Lee enjoys watching sports events, visiting with his buddies, reading, and television. He'll spend many a pleasant hour doing just these things.

After a man has worked for a living as long as Lee has, retired life has much appeal. Lee feels that it's going to be a great experience for him. Our most sincere wish to Lee is that his days are filled with happiness and sunshine, and that the fish are always biting when he casts a line.

Our Best To You, Virg

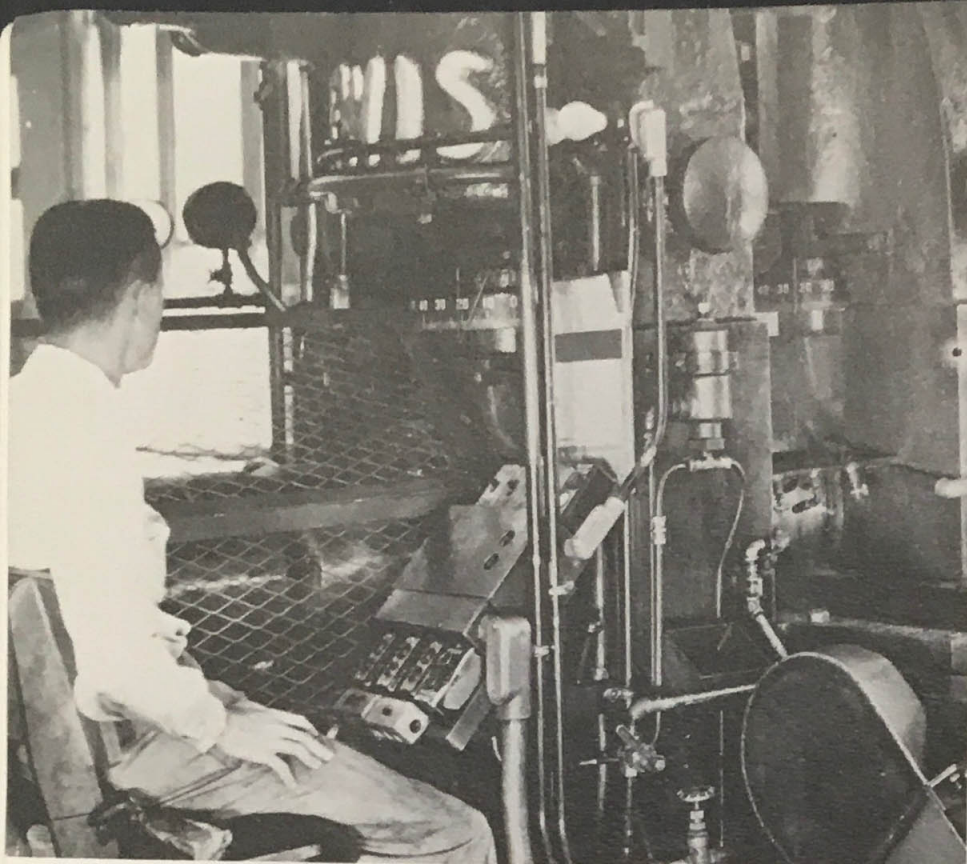


Virgil Gastineau, who had over 22 years service with the company, became a retiree on January 31. Virg had looked forward to this day for a long time. He feels that retired life can and should be a happy and enjoyable experience. Virg is, incidentally, among those who took advantage of the early retirement feature of our pension plan in that he retired before he reached normal retirement age.

Virg started at Tool Steel in July 1947 as a member of our guard force. He served as a full time member of our guard force until 1961, when the guard force, as such, was discontinued. When the guard force was disbanded, plant protection was taken over by the Maintenance Department. At that time, Virg was transferred to the Maintenance Department office. He worked there on a part time basis and on week-ends and holidays he worked as a guard at the Sharon Plant.

Virg's career at Tool Steel is one of the most unusual of any one who ever worked here. This is so because he has probably worked on more week-ends and holidays than any one in our company's history. While others were enjoying the week-ends and holidays, Virg was protecting the home front. A man who serves as a guard is in a position of trust. He must be steady, honest, sober, and dependable. Virg has these qualities to the nth degree. Virg took his job seriously. When you're the only person on the premises of a company you have a lot of responsibility on your hands. Virg's performance as a full time guard and later as a part time guard was such that we can't remember a complaint about his handling any situation that came up.

Virg doesn't have detailed plans as to what he'll do in his retirement. He'll do the many usual things that most retirees do. He'll spend some time on his yard and his garden in the summer months. He'll read, watch T.V. and probably take in a ball game now and then. Virg hopes, too, that he'll be able to travel now and then. We have a hunch that Virg is going to enjoy his retirement. **Geared-Fax** and all Tool Steel wish him well.



TOOL STEEL ROLLS USED AT THE U.S. MINT, Denver, Colorado

The Denver Mint was established by an act of Congress approved April 21, 1862. About a year later it acquired the facilities of Clark, Gruber & Co. and opened for business in September 1863. Unlike Clark, Gruber & Co.—which purchased gold from the miners and manufactured 5- and 10-dollar gold coins for circulation—the Mint confined its operation to melting, refining, assaying, and stamping of cast gold bars which were returned to the depositor as unparted bars stamped with the weight and fineness. The Mint thus operated as an assay office until it moved into the present building in 1904 and started coinage operations in February 1906.

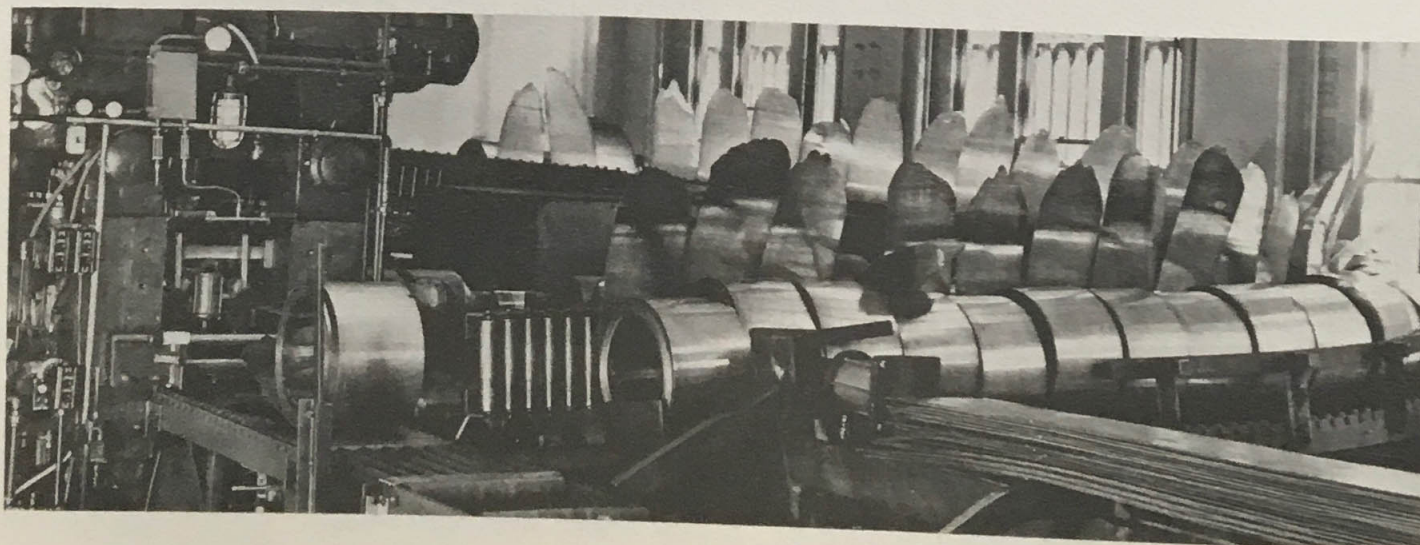
Production in 1906 was 167,371,035 coins, whereas, presently, annual figure is approximately 3 billion coins. The Denver Mint, in 1906, began with three coin presses; now, it has over 55 presses operating. The plant is currently operating 16 hours a day, five days a week, and produces approximately 20 million pieces

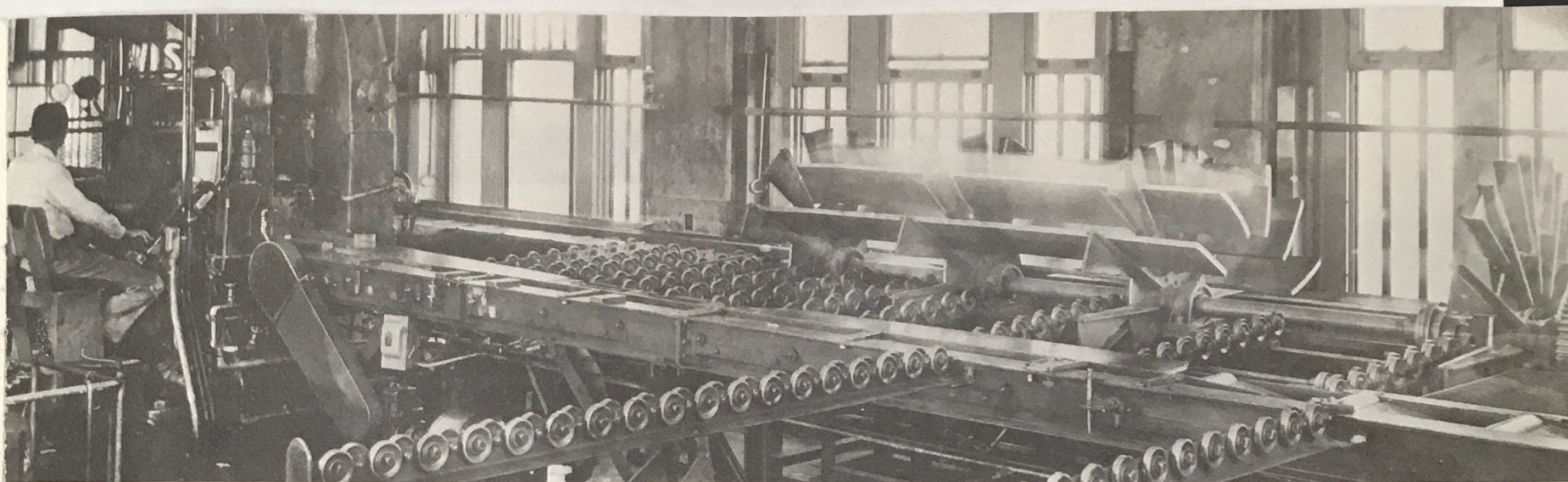
per day. A third shift is employed if necessary.

It takes 30 tons of pressure to stamp a cent or a dime; 60 tons of pressure for a quarter; 75 for a nickel; and 100 tons for a fifty-cent piece.

The Mint is not in the banking business; newly-minted coins can be released only to the Federal Reserve Banks. Likewise, Federal Reserve Banks do not deal with the public; they deal solely with their member banks.

Proof coins were discontinued in 1964, however, the manufacture of these coins was resumed in 1968. In the intervening years, 1965, 1966, and 1967, Special Mint Sets were produced; they are not “proof” quality but have had special handling and have a higher relief than newly-minted coins made daily. Whereas proof sets originally were made by the Philadelphia Mint, they are now manufactured by the United States Assay Office, San Francisco, therefore, such coins bear the letter “S”. The Coinage Act of 1965 eliminated the Mint mark, but this mark was again authorized in 1968. The Philadelphia





Mint has no Mint mark on its coins. **Official** mint sets always carry a United States Government seal.

Silver dollars have not been minted since 1935. The metallic content of the silver dollar was not changed by the Coinage Act of 1965, but that legislation provides that no silver dollars shall be minted for a period of five years.

The Denver Mint also makes coins for foreign countries. More contracts for foreign coins seem to be indicated in the next few days.

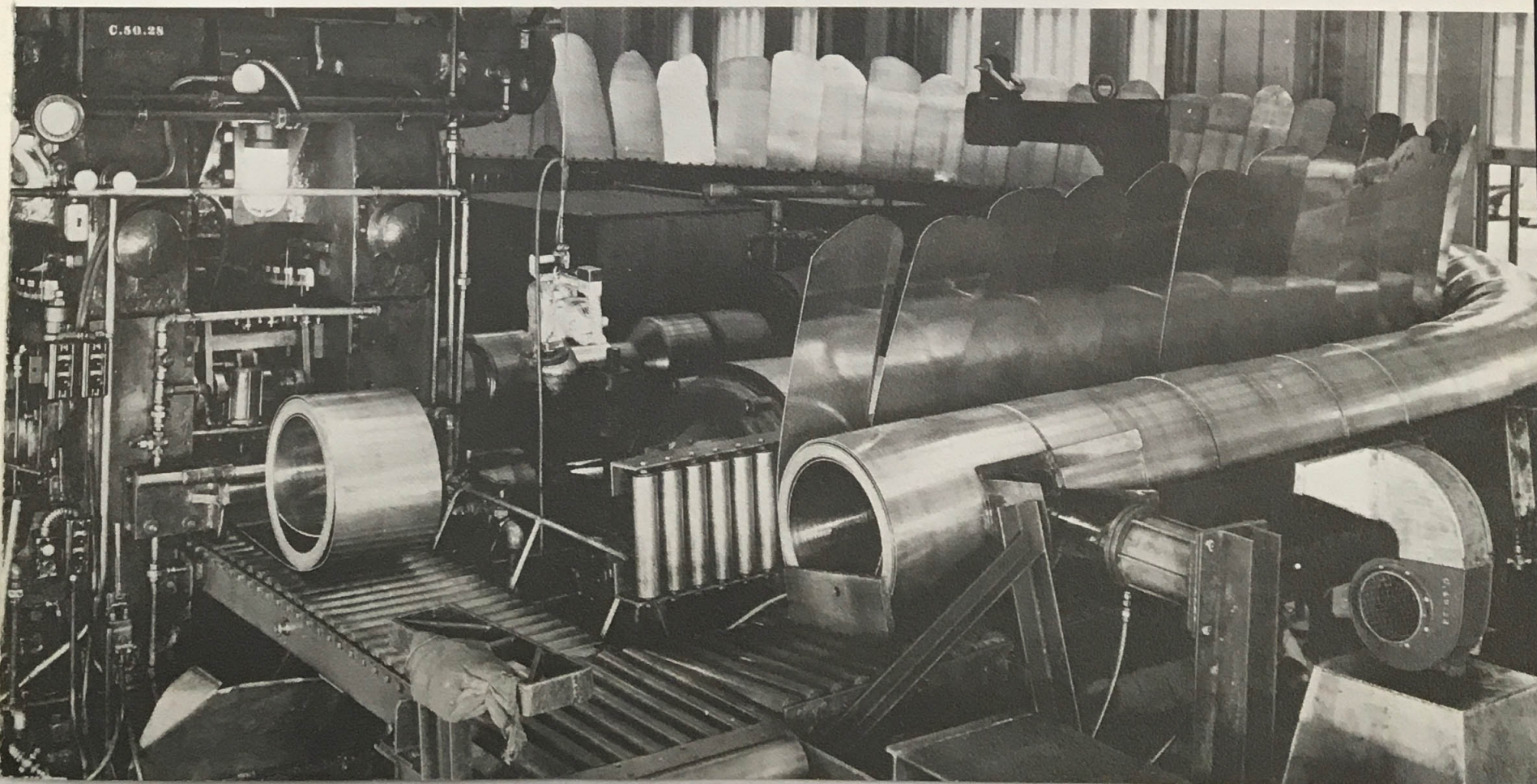
At the Denver Mint the visitor may view a display of gold bars worth over \$1,000,000. The average gold bar on display weighs approximately 27½ pounds and is worth \$14,000. The Mints stopped the purchase and sale of gold as of close of business March 15, 1968.

Since July 1967, when the Treasury Department ceased its sales of silver at \$1.29 per ounce, the Treasury and the Federal Reserve Banks have been issuing clad dimes and quarters only, and holding in inventory mixed silver and clad dimes and quarters as they flow back to Federal

Reserve Banks. When separated, the clad coins are returned to circulation and the silver coins are melted into bars. The coin-silver bullion is being made available for industrial use through weekly sales by the General Services Administration.

It is expected to take about one year to complete separation of the coin held in inventories. The Treasury and Federal Reserve Banks are cooperating in order that (1) silver can be made available for industrial use; (2) clad coins can be returned to circulation as needed; (3) storage space can be freed; and (4) it will be possible to return to normal production and distribution of coins now that the coin shortage has passed, and the transition to clad coins has been completed.

Coinage stock is rolled on 2-High roughing and finishing mills. The same size roll is used on both mills. Tool Steel has shared in meeting the roll requirements of these mills since 1954. The Denver Mint has had no problems with Tool Steel rolls and daily use Tool Steel rolls for rolling coinage stock.



TOOL STEEL CREDIT



Newly Elected Officers — January 31, 1970

BOARD OF DIRECTORS

Don Holt
G. Hostiuck
Emerson Kitchen

CREDIT COMMITTEE

Bob Fiebig — Bob Jones — Nelson Weisman —
Tony Whitt



UNION DINNER

AUDIT COMMITTEE

Paul Reichling — Carl Schaefer

OFFICERS

PresidentArnold Hill
Vice-PresidentKen Schneider
SecretaryDon Holt
TreasurerCarl Proud



Charter Members Attending — January 31, 1970



TEN YEARS AGO AT TOOL STEEL



The five attractive girls shown on our cover this month were photographed for the **Geared Fax** feature, Tool Steel Personalities. The photography and the art work were done by **Ed Gleason**, Co-editor and staff photographer.

Ginny Gruber did it again with a big "514" total. **Loretta Wright** had a 140 and a 134 her first and third games. **Milly Krick** was also right on Loretta's heels with a 137 and a 135. The New Year came roaring in, and so did **E. Fricke** (520), **E. Chamberlain** (423), **S. Spears** (476), and **W. Neufarth** (420) when they trounced **C. Proud** (549), **T. Wright** (444), **E. Baker** (410), and **Al Schwarzwald** (375).



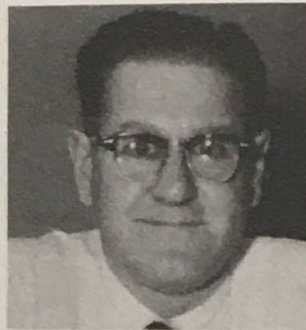
CREDIT UNION OFFICERS — From left to right seated: **Bob Messer**, **Dee Van Bibber** and **Art Baldock**. Standing: **Ralph Stahman**, **Dick Bocksteigel** and **Gus Alexander**. **Joe Locke**, also a board member, is not shown.

GEARED CHATTER — This month's congratulations go to **Ed Brady**. He and **Bill Goetz** were to go to a Winton Place Vets meeting on Tuesday evening. Since they live close to each other, Ed told Bill he'd pick him up. He did and after a few moments of driving down Winton Road hill, an ominous sputtering sound was heard. That's right — no gas. These two had to trek back to Bill's house for his car and it was up hill all the way, probably one of the longest miles either of them had ever walked.

After telling us about this incident, our informant asked us if we had heard about another incident concerning these two. Again they were going to a Vets meeting and were going to take

Ernie Staubach with them as their guest. They picked up Ernie and arrived at the hall, this time without running out of gas. There was only one problem, however, they went on the wrong night.

Sometimes **Mary Woody** is spared the walk to work when one of her fellow-workers will pick her up along Elmwood Avenue and bring her to work. One morning, however, a car stopped at the intersection of Linden and Elmwood Ave. and Mary politely stepped in the car next to the lady driver. A quick glance told her that this was a stranger. Mary, embarrassed, politely opened the door, said excuse me and walked the rest of the way to work that morning.



Al Schwarzwald



Len Schneider

SHOP PROMOTIONS — On February 1, 1960 **Al Schwarzwald** was appointed Foreman of the Tooth Grinding, Rebore and Welding Department at the Elmwood Plant of the Tool Steel Gear and Pinion Company.

On February 1, 1960 **Len Schneider** was appointed Foreman, Cold Rolling Department, Sharonville Plant, Night Shift.



MANAGER APPOINTED FOR THE BADALL CO., INC.

Jack Reynolds, previously Acting Foreman of the Tooth Grinding, Rebore, and Welding Departments at the Elmwood Plant of The Tool Steel Gear and Pinion Company has been appointed Manager of The Badall Company, Inc., our new subsidiary in Hammond, Indiana. Jack, who holds a Masters Degree in Industrial Management from Xavier University in Cincinnati, joined the Tool Steel Organization on April 29, 1957 as an Industrial Engineer with the Standards Department.

On September 21, 1959 he was promoted to Acting Foreman of the Tooth Grinding, Rebore, and Welding Departments at the Elmwood Plant. On February 8, 1960, he was appointed Manager of The Badall Company, Inc. The appointment became effective on February 15.

JAPANESE EXECUTIVES VISIT TOOL STEEL

The Tool Steel Gear and Pinion Company is becoming well-known in Japan through the sale of our "Tool Steel Process" components to the rapidly expanding Japanese Steel Industry. We have hosted several groups of Japanese visitors during the past year with the most important visit coming recently on December 4. At that time, twenty-nine executives of leading heavy industry, machinery, electrical and steel plants visited our Sharonville Plant under the auspices of the Japan Management Association.

The Japan Management Association is a private, nonprofit consulting and educational organization serving progressive businesses throughout Japan. To meet the need for increased productivity and management training requirements, the Japan Management Association sponsors seminars, study programs and visitations such as that in which our company took part.

The group of twenty-nine Japanese executives arrived in Cincinnati from Chicago after visiting several automotive parts manufacturing companies and following their visit to Tool Steel were to tour the General Electric facility in Lockland, Ohio. The group arrived by chartered bus at the Sharonville Plant and, following a briefing session in the cafeteria, toured the plant under the capable direction of General Superintendent, **Bill Henry**; Sharonville Superintendent, **Dick Bockstiegel** and Foreman, **Robert Harris**. Vice President of Sales, **Bob McGrath** hosted the discussion period prior to and after the plant tour ably assisted by **Jim Roux**, **Bill Henry** and **Dick Bockstiegel**. **Mr. Robert Brayton**, Director of Sales, Armco International and **Mr. Glenn Lyons** of Armco International in Middletown, Ohio joined the group for the plant tour.

The Japanese visitors took back with them a clear picture of our plant, facilities, products, and the qualities embodied in our full range of products and services. This can only be helpful to our future sales program to Japanese Industry.



Japanese Executive Labor Saving Study Team — photographed at Tool Steel Gear and Pinion Company's Sharonville Plant. This study team toured the United States during November and December under the auspices of the Japan Management Association. General Superintendent, **William Henry**; Assistant Vice President in Charge of Sales, **Jim Roux**; Vice President of Sales, **Robert McGrath**; **Dick Bockstiegel**, Superintendent of Sharonville Plant; **Mr. Glenn Lyons**, Armco International, Middletown, Ohio and **Bob Harris**, Foreman, Sharonville Plant are seen in the back row.



Japanese Manufacturing Executives at Sharonville Plant Tour. The group was observing our new Cincinnati tape controlled turning center. Thanking the group is **Mr. Glenn Lyons** of Armco International Corporation, Middletown, Ohio on the left and **Bob Harris**, Foreman, Sharonville Plant on the right.

1969 — YEAR IN

ORDERS AND SHIPMENTS

JANUARY	
Orders	\$2,497,790.00
Shipments	\$2,037,707.00
FEBRUARY	
Orders	\$1,762,249.00
Shipments	\$1,780,160.00
MARCH	
Orders	\$2,026,757.00
Shipments	\$2,184,448.00
APRIL	
Orders	\$2,157,614.00
Shipments	\$2,140,459.00
MAY	
Orders	\$2,352,828.00
Shipments	\$2,447,295.00
JUNE	
Orders	\$1,766,420.00
Shipments	\$1,943,599.00
JULY	
Orders	\$1,987,680.00
Shipments	\$2,313,207.00
AUGUST	
Orders	\$1,887,756.00
Shipments	\$1,856,251.00
SEPTEMBER	
Orders	\$2,037,719.00
Shipments	\$2,097,278.00
OCTOBER	
Orders	\$2,130,947.00
Shipments	\$2,113,557.00
NOVEMBER	
Orders	\$1,997,629.00
Shipments	\$2,126,921.00
DECEMBER	
Orders	\$2,766,936.00
Shipments	\$2,298,061.00

RETIREMENTS

JANUARY	
Roy Moore	33 years
Burdette Henderson	43 years
FEBRUARY	
George Stegeman	29 years
MARCH	
Clarence Tuttle	35 years
Alonzo Blakely	23 years
APRIL	
Loretta Wright	40 years
William Roy	16 years
John Brown	26 years
MAY	
Ray Stroppel	50 years
Tom Gundle	38 years
JUNE	
James A. Hight	46 years
William D. Clark	47 years

NOVEMBER

Leon Keene	16 years
Hilda Schlegel	18 years

PROFIT-SHARING BONUS

First Quarter	6.1%
Second Quarter	7.4%
Third Quarter	7.3%
Fourth Quarter	8.3%

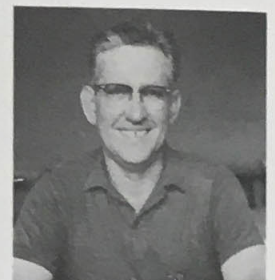
INTERESTING YEAR-END FIGURES

Value of Incoming Orders	\$25,372,340.00
Value of Shipments	\$25,535,736.46
Total Profit-Sharing Bonus Paid	
to Employees	\$467,474.71
Major Medical Benefits Paid	
to Employees	\$23,583.74

INCOME FOR IMPROVEMENT AWARDS \$100 AND ABOVE DURING 1969



Don Claire



Henry Wallbaum

Don Claire (1)	\$1,905.15
Henry Wallbaum	1,000.00
Ralph Hite, Jr.	750.00
Paul Losekamp	518.65
William Schmidt	518.65
Paul Tenkman	375.00
Donnie Dryden	145.00
Richard Neufarth	117.50
Al Wright	117.50
Olin Turner	112.00
Don Claire (2)	105.45
Don Hewitt (1)	100.00
Tom Cole (1)	100.00
Tom Cole (2)	100.00
Don Hewitt (2)	100.00
George Hinderer, Jr.	100.00

REVIEW — 1969

JANUARY

Important organizational changes are announced at Tool Steel. **Harry Hopkins** becomes the Executive Vice President; **Russ Hoffman**, Vice President of Engineering; **Robert McGrath**, Vice President — Sales; **George Rebeck**, Works Manager; **Richard Bockstiegel**, Shop Superintendent of Sharonville Plant; **Richard Shurte**, Superintendent of Heat Treating; and **Fred Koch**, Manager of Manufacturing — TSP-Schmidt Coupling Division. New Credit Union officers are: **Arnold Hill**, President; **Kenneth Schneider**, Vice President; **Don Holt**, Secretary; and **Carl Proud**, Treasurer.

FEBRUARY

Tool Steel purchases Dare Plastics Company. **Colonel Machado** becomes a Field Sales representative in South Africa. It is announced that the floating holiday this year will be December 26. Plans for an Open House in September are announced. **Roy Moore** is to serve as Chairman. New Management Club officers are: **Bill Wyatt**, President; **Lynn Arnold**, Vice President; **Mary Jane Honebrink**, Secretary; **Art Baldock**, Treasurer.

MARCH

Pinion Pete's Pencillings begins its 18th consecutive year of publication. Groups of students from Courter Tech and St. Bernard High School visit our plants. Tool Steel mill pinions participate in a new world record for an 8-hour shift at the United States Steel Corporation. Tool Steel holds the Annual Company Bowling Tournament. Tool Steel Vets present a \$450.00 check for a color TV set to the V.A. Hospital. Tool Steel has its 60th anniversary this month.

APRIL

All employees are given an opportunity for a free chest X-Ray through a mobile unit, a bi-yearly policy followed for Tool Steel employees since 1940. It is announced that air conditioners are to be installed in our cafeterias at Elmwood and Sharonville. **Lawrence Herman** becomes a salesman for Tool Steel in the Detroit area. Tool Steel demonstrates TSP-Bogiflex Drive to many heavy equipment builders.

MAY

A very successful Green Cross for Safety Campaign is completed. The Annual Tool Steel Old-Timers Party is held. Those honored were: **Ray Stroppel** for 50 years of service; **Clarence Clark** and **Loretta Wright** for 40 years of service.

JUNE

Tool Steel holds its Annual Family Picnic this year at Coney Island. **Ray Stroppel** receives a lifetime membership in the Institute of Electrical and Electronic Engineers and **Doc Hight** receives a lifetime membership in the American Society of Safety Engineers. **Carl Morlok** is elected president of the Southwestern Chapter of the American Society of Safety Engineers.

JULY

Tool Steel Management Club awards two scholarships, the winners being elected from the graduating seniors this year who are sons or daughters of Tool Steel employees. The winners are **Anne Haeckl**, daughter of **Emmett Haeckl**, who receives a \$100 scholarship, and **Carol Shively**, daughter of **Leo Shively**, who received a \$50 scholarship. Tool Steel is asked by United Appeal to again fly the United Appeal flags because of the fine contributions of the employees and company each year. The amount Tool Steel employees have received in profit-sharing passes the 6½ million dollar mark with the bonus of \$116,756 paid in July.

AUGUST

Through the fine contribution of Tool Steel employees and the company, **Jan Acus's** Santa Bag Committee is able to send 60 bags to our men in Vietnam. Junior Achievement advisors this year for Tool Steel are: **Bob Hoffman**, **Dan Burns**, **Jim Dunaway**, and **Jeannette Wesley**.

SEPTEMBER

A seminar on Vibration by the International Research and Development Corporation is held at Tool Steel. Tool Steel obtains a plaque in honor of **Algernon P. Thomas**, a former employee, and son of **Mr. and Mrs. Addie Thomas**, who lost his life in Vietnam. The Annual Company Golf Tournament is held at Winton Woods. The United Appeal Campaign begins. Tool Steel holds its Open House, attracting many visitors as well as many compliments. The Tool Steel-Badall Sales Meeting is held with the theme, "A Scientific Approach to Sales."

OCTOBER

Larry Jackson, Systems Manager, makes a presentation in a 3M sponsored seminar. A lengthy story about a group of Japanese visitors here at Tool Steel appears in the Cincinnati Enquirer. Excellent pension changes for Tool Steel employees and retirees are announced by the company. Tool Steel employees contribute a record \$15,655.00 to the United Appeal Campaign this year.

NOVEMBER

Walter Neufarth, Foreman of the Gear Cutting Department, at Sharonville, has an article published in the Machine and Tool Blue Book, a leading engineering magazine for metal-working manufacturing.

DECEMBER

A record 38 employees become eligible and sign up for the excellent Tool Steel Pension Plan. The Annual Christmas Luncheon for our retired employees and the Tool Steel Christmas Party for the children of our employees again are quite successful. All employees receive their Christmas bonus checks and a basket of food, including a big ham. Tool Steel servicemen again receive a \$50 bond from the company. Sharonville employees give Christmas baskets to needy families.

1970 Capital Expenditures

In December, 1969, the Board of Directors of The Tool Steel Gear and Pinion Company approved the request of more than \$1,000,000 for capital improvements during the year 1970.

The list ran the gamut of items from office equipment to increased power supply and distribution capacity for the Elmwood Plant. There were also several items for the Material Moving Departments but as usual the bulk of the money will be spent for machine tools and heat treating equipment.

This action by the Board and the top Executives of our company helps to insure us of continuing steady employment by enabling us to stay competitive. In addition to improving our efficiency, the equipment, both machine tools and heat treating, will help us to improve the quality of our products.

In future issues of **Geared Fax** we will feature some of the major items as they are put into production.



299!!

Sgt. Gary L. Meyer, son of Lee Meyer, who works in our IBM Department, recently bowled an excellent 299 game while performing in the Elmwood Classic at Elmwood Lanes. Gary, home on leave from the armed services, was subbing for the Burger Beer team. A "brooklyn" on his last toss left the 6 pin standing. His other games were 196 and 191, giving Gary a 686 series.

TOOL STEEL BOWLING TOURNAMENT

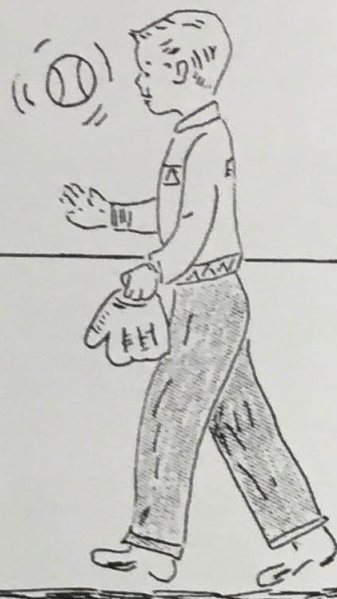
March 8 - Sunday
March 15 - Sunday

Night Men's Bowling

After 54 games of bowling the team of Ray Furnish, Ed Schwartz, Ken VanHorn, and Robert Moore are leading the league with 35 wins and 19 losses. Close behind is Jim Townsend, Harold Johnson, Fred Polly and Ken Pfeiffer, with 31½ wins and 22½ losses. In third place is Lou Brown, Jim Schuster, Lee Meyer, and Clint Woodrum with 31 wins and 23 losses.

"600" Bowlers so far this year:

Robert Moore	608
Ray Furnish	608
Ralph Itskin	601
Bob Messer	600
Jim Townsend	600



this boy is . . .
WANTED

This boy is wanted at school for questioning in connection with the proper spelling of the word Mississippi.

He is wanted at home for errands, for picking up the bath towel that he left on the upper hall floor, and for his weird, wonderful sense of humor.

Most of all, this boy is wanted for love.

He may be carrying a water pistol, some string, a piece of chalk, a wing nut, two jacks and one large clear blue marble.

He is harmless but, unfortunately, he is very easily harmed. Let him get to school and home again without an accident!

GREATER CINCINNATI SAFETY COUNCIL

MARCH BIRTHDAYS

Date	Name	Years of Service
2	Loren Ard	14
3	Henry Wallbaum	24
3	Oscar Williams	25
3	Larry Herren	2
3	Joe Montgomery	10
4	Lloyd DeSerisy	29
4	Ralph Hammonds	10
4	Maurice Williams	22
6	Vic Padgett	33
6	Bill Dixon	18
7	Art Baldock	25
8	Earl Chamberlin	15
8	Coy Sweet	31
8	Bill Kissel	19
8	Bruce Cupp	5
9	Herman Patterson	20
9	Darrell Rhodeback	14
9	Wayne Woodrum	14
9	Ruth Brown	13
9	William Gamble	1
10	Bill Schalk	19
10	C. W. Genson	3
11	Charles Sargent	14
12	John McCarthy	18
13	Dorothy Barnes	2
14	Eleanor Meinberg	16
14	Karen Merkl	2
15	Sam Walcher	6
15	Paul Minton	20
16	Bill Harig	7
16	Earl Parrott	5
16	Terry Verkamp	1
17	Tom Hughes	29
17	Bob Jones	15
19	Jim Davidson	28
19	Faye Albach	29
19	Ken Williams	27
20	Charles Henry	20
20	Lee Meyer	2
21	Calvin Davidson	20
21	Robert Kozlowicz	5
21	Ralph Itskin	30
21	Charles Clayborn	1
22	William Henry	34
22	Stanley Brown	33
23	Horace Wooton	18
23	David Felthouse	5
23	John Carson	1
24	Hubert Hamblin	17
24	Tom Cole	6
26	Joe Locke	33
26	Bill Smith	5
26	Kathy Giuseffi	4
27	Andy Bartish	14
27	Henry Bond	2
28	Corinne Wells	10
28	Roger Doty	5
29	Linda Mathews	1
30	Harold Monahan	27

RETIRED EMPLOYEES

2	Millard McAninch
2	George Stegeman, Sr.
5	George Boland
5	Ed Weidig
15	Alma Thede
19	Al Luebke
25	John Bothe
25	Helen Harris

STORK NEWS

Mr. and Mrs. James SchusterGirl
Mr. and Mrs. Donnie PetersBoy

ANNIVERSARIES

During the month of March, the following person will celebrate an anniversary.

Charles Hormann — 15 yearsMarch 28

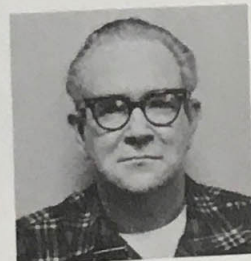


PAT REIDE — Purchasing
BILL SAYLOR — Estimating
Married at St. Ann's, Groesbeck on November 29, 1969.

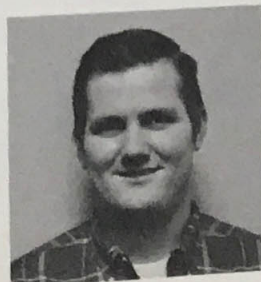
NEW EMPLOYEES



CHARLES DOOLEY
TSP Schmidt Couplings



LEHMAN NEAL
Metallurgy



RAY DAVIDSON
Material Moving

Family Album



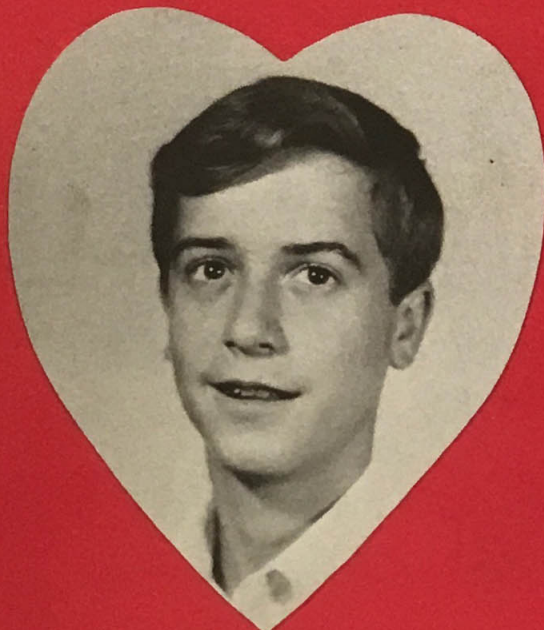
SANDRA ALLEE — 14 Months
daughter of Mr. and Mrs. Robert Allee



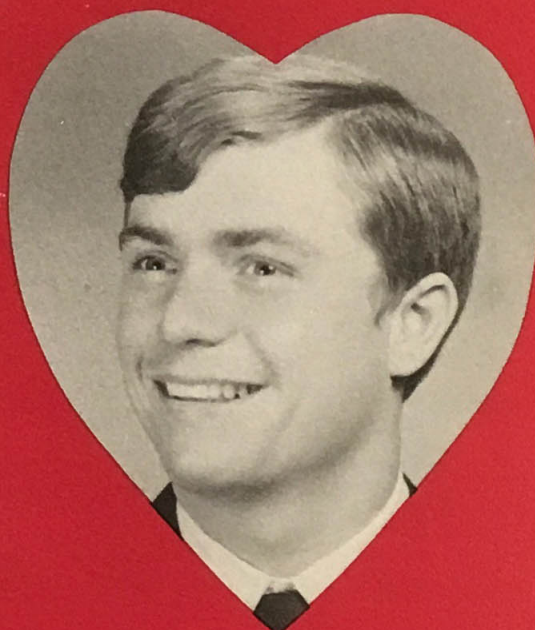
MARK CAYLOR — 5 Yrs.
SALLY CAYLOR — 2 Yrs.
children of Mr. and Mrs. Joel Caylor



TIMMY HENTZ — 1 Yr.
son of Mr. and Mrs.
John Hentz.
Mrs. Hentz drew this
picture of Timmy from
a photograph.



DON JASPER
14 Yrs.



RICHARD JASPER
20 Yrs.

(sons of Mr. and Mrs. Arvis Jasper)

As amended by Chas. Miller - February 1971

FACTS AND FIGURES CONCERNING THE UNITED STATES MINT, DENVER, COLORADO

The Denver Mint was established by an act of Congress approved April 21, 1862. About a year later it acquired the facilities of Clark, Gruber & Co. and opened for business in September 1863. The location then was Sixteenth and Market Streets. Unlike Clark, Gruber & Co.--which purchased gold from the miners and manufactured 5- and 10-dollar gold coins for circulation--the Mint confined its operations to melting, refining, assaying, and stamping of cast gold bars which were returned to the depositor as unparted bars stamped with the weight and fineness. The Mint thus operated as an assay office until it moved into the present building in 1904 and started coinage operations in February 1906. Additions to the original building were completed in 1936, 1946, and 1965.

The stone facing of the building is Colorado granite, up to and including the water table. The Arkins granite above that (which required large slabs) was procured in Maine. Tennessee marble forms the window trimmings, and Vermont marble was used on the interior finish.

The decorations of the main corridor on the first floor, mezzanine floor, and the second floor were completed under the direction of John Gibson, a member of an old Philadelphia firm. The three mural paintings in the area above the cornice inside the main vestibule are the work of Vincent Adriente, who worked under the supervision of the celebrated mural artist Edwin Howland Blashfield of New York City. The paintings represent Commerce, Mining, and Manufacturing.

The Great Seal of the United States, in the form of a large metal casting, was placed in the center of the vestibule floor. In the summer of 1961 this seal had worn so smooth it was replaced in mosaic.

The building, viewed from the street, gives the impression of being two stories high; actually, there are five floors.

Production in 1906 was 167,371,035 coins, whereas, presently, our annual figure is approximately 4 billion coins. ⁵⁶The Denver Mint, in 1906, began with three coin presses; now, it has over 56 presses operating. ~~The plant is currently operating 16 hours a day, five days a week, and produces approximately 20 million pieces per day. A third shift is employed if necessary.~~ ✓

It takes 30 tons of pressure to stamp a cent or a dime; 60 tons of pressure for a quarter; 75 for a nickel; and 100 tons for a fifty-cent piece.

Well-trained, armed guards are on duty at all times. By a thorough check in the weighing system, any discrepancy on the production floor can be traced in a matter of a very short time.

In the past ten years the number of employees rose from 225 to 600, but has leveled off to the current figure of 440. All employees are under Civil Service with the exception of the Superintendent and the Assayer--who are appointed by the President of the United States. Employees are thoroughly investigated before they are hired.

1/ All 56 coin presses operate 24 hours a day, five days a week, and produce approximately 20,000,000 pieces per day, depending upon the proportion of small and large coins being produced.

2/ The Mint is not in the banking business; newly-minted coins can be released only to the Federal Reserve Banks. Likewise, Federal Reserve Banks do not distribute coins to the public; their distribution of coins is to their member banks only.

Proof coins were discontinued in 1964, however the manufacture of these coins was resumed in 1968. In the intervening years, 1965, 1966, and 1967, Special Mint Sets were produced; they are not "proof" quality but have had special handling and have a higher relief than newly-minted coins made daily. Whereas proof sets originally were made by the Philadelphia Mint, they are now manufactured by the United States Assay Office, San Francisco; therefore, such coins bear the letter "S". The Coinage Act of 1965 eliminated the Mint mark, but this mark was again authorized in 1968. The Philadelphia Mint has no Mint mark on its coins. Official mint sets always carry a United States Government seal.

Silver dollars have not been minted since 1935. The metallic content of the silver dollar was not changed by the Coinage Act of 1965, but that legislation provides that no silver dollars shall be minted for a period of five years.

3/ As of this date (June 1970), legislation authorizing the minting of Eisenhower dollars is pending in Congress. Final enactment of this legislation is delayed by a difference of opinion as to whether the coin should contain some silver or be made entirely of cupro-nickel.

The Denver Mint also makes coins for foreign countries. More contracts for foreign coins seem to be indicated in the next few years.

At the Denver Mint the visitor may view a display of gold bars which is worth over \$1,000,000. The average gold bar on display weighs approximately 27½ pounds and is worth \$14,000. The Mints stopped the purchase and sale of gold as of close of business March 15, 1968.

At the completion of the tour, visitors may purchase currently available, official U. S. Mint coin sets, as well as the newly-authorized miniature Presidential medals. All may be purchased at the Cashier's window in the lobby.

- 2/ Our entire production of coins is distributed through the Federal Reserve Banks in accordance with shipping orders from the Treasury Department, Washington, D. C. The Federal Reserve Banks, in turn, distribute the coins to their member banks.
- 3/ Cupro-nickel clad half dollars are now in production. Eisenhower dollars, made of the same cupro-nickel clad, will be in production around July 1, 1971.

FACTS AND FIGURES CONCERNING THE UNITED STATES MINT, DENVER, COLORADO

The Denver Mint was established by an act of Congress approved April 21, 1862. About a year later it acquired the facilities of Clark, Gruber & Co. and opened for business in September 1863. The location then was Sixteenth and Market Streets. Unlike Clark, Gruber & Co.--which purchased gold from the miners and manufactured 5- and 10-dollar gold coins for circulation--the Mint confined its operations to melting, refining, assaying, and stamping of cast gold bars which were returned to the depositor as unparted bars stamped with the weight and fineness. The Mint thus operated as an assay office until it moved into the present building in 1904 and started coinage operations in February 1906. Additions to the original building were completed in 1936, 1946, and 1965.

The stone facing of the building is Colorado granite, up to and including the water table. The Arkins granite above that (which required large slabs) was procured in Maine. Tennessee marble forms the window trimmings, and Vermont marble was used on the interior finish.

The decorations of the main corridor on the first floor, mezzanine floor, and the second floor were completed under the direction of John Gibson, a member of an old Philadelphia firm. The three mural paintings in the area above the cornice inside the main vestibule are the work of Vincent Adriente, who worked under the supervision of the celebrated mural artist Edwin Howland Blashfield of New York City. The paintings represent Commerce, Mining, and Manufacturing.

The Great Seal of the United States, in the form of a large metal casting, was placed in the center of the vestibule floor. In the summer of 1961 this seal had worn so smooth it was replaced in mosaic.

The building, viewed from the street, gives the impression of being two stories high; actually, there are five floors.

Production in 1906 was 167,371,035 coins, whereas, presently, our annual figure is approximately 4 billion coins. The Denver Mint, in 1906, began with three coin presses; now, it has over 56 presses operating. All 56 coin presses operate 24 hours a day, five days a week, and produce approximately 20,000,000 pieces per day, depending upon the proportion of small and large coins being produced.

It takes 30 tons of pressure to stamp a cent or a dime; 60 tons of pressure for a quarter; 75 for a nickel; and 100 tons for a fifty-cent piece.

Well-trained, armed guards are on duty at all times. By a thorough check in the weighing system, any discrepancy on the production floor can be traced in a matter of a very short time.

In the past ten years the number of employees rose from 225 to 600, but has leveled off to the current figure of 440. All employees are under Civil Service with the exception of the Superintendent and the Assayer--who are appointed by the President of the United States. Employees are thoroughly investigated before they are hired.

Prints

reproduced from

THESE SEVEN, COLORED REPRODUCTIONS, PRESENTED TO THE DENVER MINT, WERE ~~TAKEN OF~~ THE GLASS MOSAICS WHICH WERE REMOVED FROM THE OLD PHILADELPHIA MINT AND RE-MOUNTED IN THE NEW UNITED STATES MINT ON INDEPENDENCE MALL.

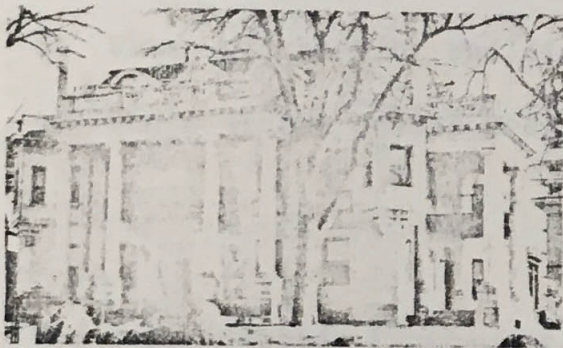
THE GLASS MOSAICS WERE EXECUTED UNDER THE PERSONAL DIRECTION OF LOUIS C. TIFFANY OF THE FAMOUS TIFFANY STUDIOS OF NEW YORK CITY, AND WERE MADE FROM DESIGNS BY WILLIAM B. VAN INGEN. APPRAISERS HAVE PLACED A TODAY'S FAIR VALUE OF \$420,000 ON THE SEVEN PANELS.

THE FIGURES OF CHILDREN ARE USED IN THESE PANELS AND ILLUSTRATE THE ANCIENT ROMAN COINAGE PROCESSES OF MELTING, GRANULATING, ANNEALING OR DRYING, WEIGHING, STAMPING AND FINISHING. THEIR USE WAS SUGGESTED BY A WALL PAINTING UNEARTHED FROM THE CASA DEI VETTII DURING THE EXCAVATIONS AT POMPEII IN 1895. VESUVIUS ERUPTED IN 79 A.D. THE VETTIAN MURAL, THOUGHT TO HAVE BEEN DONE IN THE FIRST HALF CENTURY OF THE CHRISTIAN ERA, SHOWS PLUMP, WINGED CUPIDS PERFORMING THE ANCIENT COINAGE METHODS.

THE SHIMMERING BLUES AND GREENS OF WATER AND SKY AND THE VIVID RED SAILS OF A SHIP CAN BE SEEN IN THE BACKGROUND. FOR SAFETY AND READY ACCESS TO TRANSPORTATION, ANCIENT MINTS WERE BUILT ON ISLANDS OR NEAR THE WATER TO SECURE THE SHIPMENTS OF COINS FROM THE PERILS OF LAND TRAVEL.

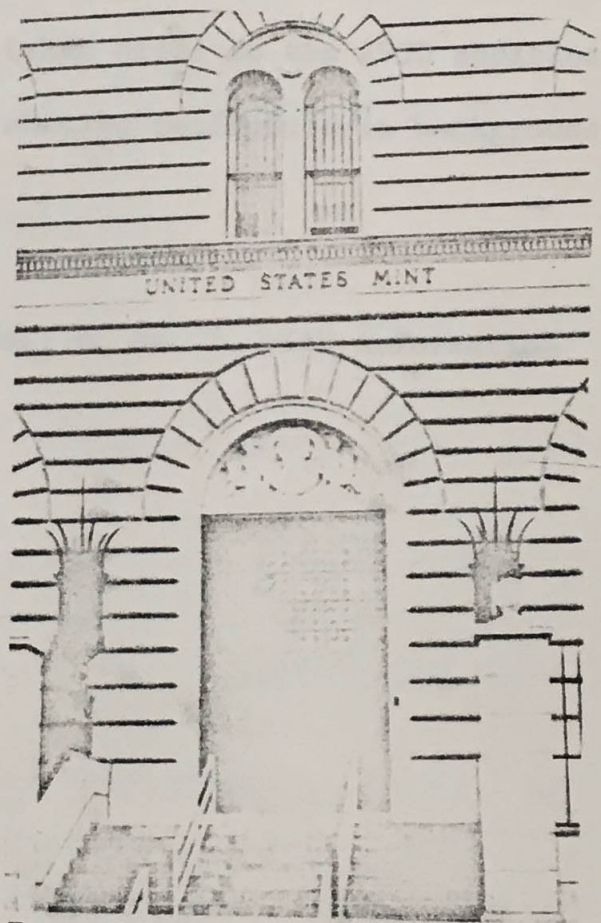
THE GLASS MOSAICS WERE INSTALLED INITIALLY AT THE OLD PHILADELPHIA MINT AT THE TURN OF THE CENTURY. THESE REPRODUCTIONS WERE PRESENTED TO THE DENVER MINT IN 1971.

When it was learned that the American Hellenic Educational and Progressive Association (AHEPA) wished to demolish the *Moffat House* at 808 Grant Street for the construction of an office building, the Landmark Commission and Historic Denver, Inc. attempted to reach possible alternate solutions with the owner. This, however, failed and the Commission, Historic Denver, Inc. and the Denver Planning Board jointly asked for an injunction in Denver County Court to stop demolition. The injunction was initially granted but by Court negotiations, the injunction was quashed and an agreement developed in which AHEPA would wait for a period of ten days during which time a purchase offer could be submitted. An offer by Historic Denver, Inc. was made but not accepted. In March of 1972 the wrecking ball ended the stately life of the Moffat House.



Moffat House

The *Denver U.S. Mint* and *U.S. Post Office Building* were studied in architectural and historic detail by the Commission.³ The Denver Mint announced a proposal to construct a new facility which would make the present building available for another use, giving local governments a first chance. As a result of investigations the Commission urged a reuse feasibility study so that the City may have the opportunity to use and assure the life of this fine example of Tuscan Pallazzo architecture. Built in 1904-1906, the original Mint building is also noted for its beautiful main entry hall. As noted above, the Mint is now listed on the National Register. The architect was James Knox Taylor, working under the U.S. Treasury Department.



Denver U.S. Mint

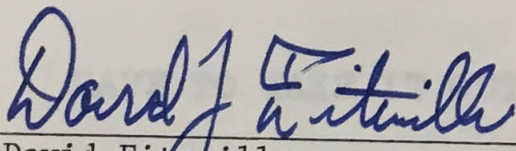
³The Mint was designated an official Denver landmark by City Council, effective in August 1972.

August 15, 1977

The following photographs were loaned to Mr. David Eitemiller; they will be returned without damage to the United States Mint at Denver by September 30, 1977.

1. Recent 8x10" of the front of the Mint building, taken after 1964.
2. 8x10" photo of the residential homes at Delaware & 14th.
3. Erection of the City & County Bldg, showing the Mint bldg. to the west.
4. Excavation photo taken prior to the building of the City & County Building.
5. Photo of the Mint building taken prior to the 1935 addition.
6. Photo of the Sweeps Cellar showing residences in background.

One copy Colorado Prospector, Vol. 3, No. 5, with information about the U. S. Mint at Denver


David Eitemiller
Aug. 15, 1977

10th Anniversary
Membership Luncheon Meeting
SPAN Society of Philatelists
and Numismatists
Houston, Texas
August 25, 1978

DENVER MINT HIGHLIGHTS
1969 - 1978

WALT, HONORED GUESTS AND MEMBERS --

AT THE RISK OF SOUNDING TRITE, I FEEL VERY PRIVILEGED
TO HAVE BEEN ASKED TO APPEAR BEFORE YOU; TO SPEAK TO YOU
CONCERNING THE HIGHLIGHTS OF MY NINE YEARS AS SUPERINTENDENT
OF THE MINT--SERVING IN THE ADMINISTRATION OF THREE
PRESIDENTS AND THREE DIRECTORS.

YOU REALIZE, OF COURSE, THAT I AM HERE AT THE INVITA-
TION OF WALT OSTROMECKI -- SO NO MATTER WHAT HAPPENS, YOU'LL
HAVE TO TAKE IT OUT ON HIM. IT'S A CASE SOMEWHAT LIKE
THAT OF A YOUNG MAN WITH A LOCAL REPUTATION AS A VOCALIST
WHO ATTENDED A DINNER AND WAS ASKED TO SING. HE HAD NO
MUSIC WITH HIM, AND WAS HOARSE AS A FROG, BUT CONSENTED
TO TRY. MIDWAY THROUGH THE FIRST NUMBER HE BROKE DOWN.

"NEVER THEE MIND, LAD," SAID AN ELDERLY QUAKER.

"THEE HAS DONE THY BEST --- BUT THE FELLOW THAT ASKED THEE TO SING OUGHT TO BE SHOT."

ABOUT THREE MONTHS AFTER I WAS APPOINTED SUPERINTENDENT, ONE DAY IN JUNE 1969, THE MINT PRODUCED 25 MILLION COINS -- A WORLD RECORD, AN UNUSUAL FEAT AT THE TIME. SEVERAL DAYS AFTER I HAD PRAISED THE EMPLOYEES, THE GENERAL FOREMAN OF THE COINING DIVISION CAME INTO MY OFFICE AND SAID, "MRS. HIGBY, WE WANT TO DO BETTER THAN 25 MILLION COINS A DAY FOR YOU. WE WANT TO SET A GOAL TO MINT FIVE BILLION COINS BY THE END OF THE YEAR." AT THAT TIME THE DENVER MINT WAS PRODUCING ABOUT 70 PERCENT OF THE NATION'S COINAGE, AND IT WAS IN THE DAYS BEFORE THE BUREAU STARTED SETTING PRODUCTION SCHEDULES FOR EACH FACILITY.

I AGREED, AND THEY WENT TO WORK. BY DECEMBER 31, 1969, WE HAD MINTED 5,013,217,370 COINS, WHICH IF LAID EDGE TO EDGE WOULD BE ENOUGH TO CIRCLE THE EARTH 2-1/2 TIMES. THE

EMPLOYEES RECEIVED AN HONORARY AWARD FROM THE TREASURY DEPARTMENT, AND I WAS CITED "THE MONEY MAKING CHAMP OF THE YEAR."

ALSO, THAT YEAR, WE MINTED FOREIGN COINS FOR COSTA RICA AND EL SALVADOR. SOME OF YOU MAY REMEMBER THAT 1969 ALSO BROUGHT THE END TO THE PROHIBITION OF MELTING AND THE EXPORTING OF SILVER COINS.

THE FOLLOWING YEAR (ON NOVEMBER 18TH, 1970) THE FIRST MINIATURE PRESIDENTIAL MEDALS WERE STAMPED. AS YOU KNOW, THE MEDALS ARE DUPLICATES OF THE OFFICIAL THREE INCH MEDAL. THEY HAVE PROVEN TO BE A VERY POPULAR MEMENTO FROM THE MINT, ESPECIALLY WITH THE CHILDREN. TOO, IT WAS 1970 WHEN WE MINTED COINS FOR COSTA RICA, HAITI, LIBERIA, AND THE PHILIPPINES.

FISCAL YEAR 1971 WAS ONE OF HISTORIC SIGNIFICANCE TO THE MINT, LARGELY BECAUSE OF THE ENACTMENT IN 1970 OF THE LEGISLATION WHICH AUTHORIZED THE MINTING OF THE EISENHOWER DOLLAR COIN.

DECEMBER 31ST, 1970, MARKS THE AMENDMENT OF THE COINAGE ACT OF 1965 WITH VERY IMPORTANT PROVISIONS RELATING TO COINAGE. ONE SECTION PROVIDED FOR THE DOLLAR AND HALF DOLLAR COIN TO BE NONSILVER CLAD. ANOTHER SECTION OF THE ACT PROVIDED THAT THE NEW DOLLAR WOULD BEAR THE LIKENESS OF THE LATE PRESIDENT DWIGHT D. EISENHOWER WITH THE APPOLLO 2 LANDING ON THE MOON AS THE DESIGN ON THE REVERSE.

ALSO IN 1971 ON FEBRUARY 3RD, IN ACCORDANCE WITH THE SAME ACT, THE DENVER MINT BEGAN PRODUCING CUPRO-NICKEL HALF DOLLARS BEARING THE PORTRAIT OF PRESIDENT JOHN F. KENNEDY.¹

HOWEVER, JUST PRIOR TO MINTING THE NEW HALVES, THE DENVER MINT MEDAL CAME INTO BEING. SECRETARY DAVID KENNEDY OFFICIATED AT THAT OCCASION ON JANUARY 15, 1971. 1971 PROVED TO BE A VERY BUSY YEAR FOR IT WAS THAT SUMMER (JULY 1971)² THAT COLORADO GOVERNOR JOHN LOVE JOINED MARY BROOKS, THE MINT DIRECTOR AT THE TIME, AND DENVER MAYOR BILL MCNICHOLS IN DEDICATING A NEW VISITORS' AREA AT THE DENVER MINT.

¹Also manufactured coins for the Philippines.

²July 8, 1971.

ALTHOUGH SPACE AT THE DENVER MINT IS ALWAYS AT A PREMIUM, IT WAS DECIDED TO CONVERT A STORAGE AREA INTO A SALES AND NUMISMATIC EXHIBIT AREA. THE REMODELING OF THE STORAGE ROOM INCLUDED THE CONSTRUCTION OF A NEW DOORWAY LEADING TO THE STREET. AT THE SAME TIME WE REMODELED THE TOUR ROUTE. RECENTLY, AND BEFORE I LEFT THE MINT IN MARCH, DISCUSSION WAS UNDERWAY TO AGAIN ENHANCE AND EXPAND THE TOUR ROUTE.

AS YOU KNOW, THE DENVER MINT ATTRACTS MANY TOURISTS; DURING THE BICENTENNIAL YEAR 320,585 PEOPLE TOURED THE MINT. OUR CONTACT WITH THE PUBLIC IS MOST SATISFYING; IT KEEPS US, BOUND AS WE ARE BY BARS AND FENCES, FROM BECOMING INGROWN. OVER THE YEARS WE RECEIVED HUNDREDS OF LETTERS AND WELCOMED THOUSANDS OF TOURISTS. TOO, MINT OFFICIALS FROM ALL OVER THE WORLD CAME TO SEE THE DENVER MINT OPERATIONS. TO NAME A FEW: MINT DIRECTORS FROM PERU, MEXICO, CANADA, AUSTRALIA, JAPAN, AND MOST RECENTLY, INDIA.

ALSO, OF COURSE, MANY DIGNITARIES IN THE UNITED STATES
VISITED US REGULARLY.

AS ONE MIGHT EXPECT, THE MAIL COMES FROM EVERY STATE
IN THE NATION. ASIDE FROM BUSINESS LETTERS, THE MAIL CAN
BE CLASSIFIED AS COIN LETTERS, TOUR LETTERS, AND ECCENTRIC
LETTERS. DURING MY TENURE AS SUPERINTENDENT, THE VOLUME
OF COIN LETTERS SWELLED EVERY TIME THERE WAS A NEWSPAPER
ARTICLE WHICH MIGHT INDICATE WE HAD SOMETHING NEW TO SELL;
THE TOUR LETTERS GREW AS SUMMER APPROACHED; AND THE ECCEN-
TRIC LETTERS, THOUGH SPARSE, WERE ALWAYS WITH US. WE
PARTICULARLY ENJOYED THE LETTERS WRITTEN BY CHILDREN;
THEIR WORDING IS SO FRESH AND NATURAL -- FROM "HELLO DEAR
MINT" TO THE SIGN-OFF "YOUR MONEY-LOVER." I WOULD LIKE
TO SHARE WITH YOU JUST A COUPLE OF LETTERS RECEIVED FROM
THESE "YOUNGSTERS."

read letters

WE REPLIED TO ALL LETTERS, BUT BEN'S LETTER WAS SOMEHOW DIFFERENT, AND BECAUSE HIS RETURN ADDRESS WAS THAT OF AN ORPHANAGE, WE TOOK A SPECIAL INTEREST IN HIM AND FOR AWHILE WE WERE PEN PALS.

GETTING BACK TO 1971, IN ADDITION TO MINTING DOMESTIC COINAGE, THE DENVER MINT STARTED PACKAGING AND SELLING PENNY BAGS. WE SOLD TWENTY PENNIES TO A BAG IN 1971, AND IN 1972 AND 1973 WE BAGGED AND SOLD 15 PENNIES TO A BAG--FIVE PENNIES EACH FROM PHILADELPHIA, DENVER, AND SAN FRANCISCO. IN 1972 WE STARTED SELLING THE DENVER SOUVENIR SETS WHICH ARE COMPRISED OF ALL DENOMINATIONS WITH EXCEPTION OF THE DOLLAR COIN; ALSO IN 1972 FOREIGN COINS WERE MADE FOR HONDURAS, LIBERIA, AND THE PHILIPPINES.

1973 WAS THE YEAR OF TESTING, AND MUCH TALK CONCERNING THE ALUMINUM PENNY. ALTHOUGH THE DENVER MINT WAS NOT DIRECTLY INVOLVED, WE WERE CONCERNED ABOUT THE INCREASE OF THE PRICE OF COPPER CAUSING THE UNIT COST OF THE ONE-CENT

PIECE TO INCREASE CONSIDERABLY AND COST MORE TO PRODUCE THAN THE FACE VALUE OF THE COIN. HOWEVER, COPPER PRICES BEGAN TO DECLINE AND IT WAS DECIDED TO CONTINUE THE MINTING OF THE COPPER PENNY.¹

COLORADO CITIZENS AND DENVER MINT EMPLOYEES WERE PLEASED WHEN ON DECEMBER 29TH, 1973, (PUBLIC LAW 93-227) CONGRESS AUTHORIZED THE DENVER MINT TO STRIKE FOR THE FIRST TIME IN DENVER MINT'S HISTORY COMMEMORATIVE MEDALS WHICH WERE IN HONOR OF THE 100TH ANNIVERSARY OF THE STATEHOOD OF COLORADO.

SUBSEQUENT TO THAT AUTHORIZATION, IT WAS JANUARY 20, 1975, THE FIRST COLORADO CENTENNIAL MEDAL WAS STAMPED BEFORE A GROUP OF ABOUT 50 PEOPLE, INCLUDING THE GOVERNOR OF COLORADO, AND THE BOARD OF GOVERNORS OF THE AMERICAN NUMISMATIC ASSOCIATION. THE ALLOY WAS 90 PERCENT COPPER, 10 PERCENT ZINC; 46,000 WERE DELIVERED TO THE COLORADO CENTENNIAL COMMISSION FOR SALE TO THE PUBLIC.

(\$5.00
with
case)

TEN MONTHS LATER (NOVEMBER 19, 1975) 20,000 SILVER MEDALS, 900 FINE, WERE STAMPED; FOLLOWED BY 100 DOUBLE-STRUCK GOLD MEDALS A YEAR LATER (NOVEMBER 17, 1976). THE GOLD MEDALS WERE OFFERED TO THE PUBLIC FOR A \$500.00 DONATION TO THE COLORADO CENTENNIAL COMMISSION. THE PROCESS FOR STAMPING THE GOLD MEDALS WAS DIFFERENT FROM EITHER THE BRONZE OR SILVER BECAUSE OF THE DOUBLE STRIKING AND SPECIAL HANDLING.

AT THE CLOSE OF THE 1976 CENTENNIAL/BICENTENNIAL ACTIVITIES AT A BANQUET AT THE DENVER ART MUSEUM, I HAD THE PRIVILEGE OF PRESENTING ONE OF THE GOLD MEDALS TO GOVERNOR LAMM, WHO ACCEPTED THE MEDAL ON BEHALF OF THE PEOPLE OF COLORADO.

TO DIGRESS, JUNE 14TH, 1974, WAS ANOTHER RED LETTER DAY AT THE MINT WHEN WE MINTED 26,200,000 COINS, EXCEEDING ALL PREVIOUS COIN PRODUCTION RECORDS. BUT THAT SAME YEAR WE BEGAN PHASING OUT THE MELTING AND ROLLING BRANCHES TO

MAKE ROOM FOR ADDITIONAL BLANKING AND STAMPING PRESSES;

FOR WE WERE ADVISED THAT THE DAY WAS COMING WHEN WE MUST

STAMP OR HAVE THE CAPABILITY OF BLANKING AND STAMPING

31 - 32 MILLION COINS PER DAY. (TWENTY-FOUR NEW COINING

PRESSES, 6 NEW BLANKING PRESSES, ONE 4,000-POUND-PER-HOUR

ANNEALING AND CLEANING LINE, AS WELL AS ADDITIONAL UPSET

MILLS AND COUNTING MACHINES WERE INSTALLED TO INCREASE

THE COIN PRODUCTION CAPABILITY TO APPROXIMATELY 31 MILLION

PIECES PER DAY.)

DOCK AND STAGING AREA ALSO WERE CONSTRUCTED. EXISTING

AREAS AND ADDITIONAL BUILDING ON MINT PROPERTY WERE REMODELED

TO ACCOMMODATE ADDITIONAL ONSITE STORAGE. (SEE 1975

DIRECTOR'S REPORT, PAGE 20.)

THAT YEAR, 1974, TAIWAN AND PHILIPPINE COINS WERE

MINTED ALONG WITH THE DOMESTIC PRODUCTION. AGAIN WE RECEIVED

AN HONOR AWARD THE END OF THE YEAR (DECEMBER 20, 1974)

FOR SUPERIOR ACHIEVEMENT AND LONG-TERM, SUSTAINED HIGH

LEVEL PRODUCTION.

IN 1975 AT ABOUT THE TIME WE GEARED UP TO MAKE 31--32 MILLION COINS PER DAY AFTER HAVING COMPLETELY PHASED OUT MELTING AND ROLLING AND ADDING ADDITIONAL BLANKING AND STAMPING PRESSES, THE FEDERAL RESERVE BOARD CHANGED THEIR FORECAST FOR COINAGE DEMAND FOR THE YEARS 1976-1977. THE BOARD ESTIMATED THE NEED FOR 15 BILLION COINS FOR BOTH YEARS, BUT THEY REVISED THAT FIGURE TO $11\frac{1}{2}$ BILLION FOR THE YEAR 1976 AND TO 10 BILLION FOR THE YEAR 1977. THAT MEANT, OF COURSE, THE DENVER MINT, AS WELL AS OTHER FACILITIES, WOULD BE REQUIRED TO CUT BACK PRODUCTION WHICH ULTIMATELY BROUGHT ABOUT A REDUCTION IN FORCE IN 1976. (I MIGHT ADD THAT THE BUREAU OF THE MINT IS NOW PROJECTING FUTURE COINAGE DEMAND, RATHER THAN THE FEDERAL RESERVE BOARD.)

HOWEVER, ON SEPTEMBER 2, 1975, WE MINTED 34,260,000 COINS, AND DURING THAT MONTH OF SEPTEMBER OUR DOMESTIC COINAGE PRODUCTION AVERAGED OVER 30,000,000 PER DAY.

(75 presses)

SEIGNIORAGE ON THAT SEPTEMBER DAY WAS \$2,663,962.09.

OVER THE YEARS WE ALWAYS MAINTAINED AT LEAST ONE-HALF MILLION DOLLARS A DAY IN SEIGNIORAGE; ABOUT ONE HALF OF THAT AMOUNT IS PROFIT.

TALKING ABOUT PROFIT REMINDS ME OF A STORY ABOUT A TAILOR WHO WAS PACKING UP THE COAT WHICH A MR. BROWN HAD JUST PURCHASED.

"YOU KNOW, SIR," HE SAID, "I AM LETTING YOU HAVE THIS GARMENT AT A SACRIFICE."

"INDEED," SAID BROWN, WHO CONSIDERED HE HAD PAID QUITE A FAIR PRICE. "LESS THAN IT COST ME TO MAKE," SAID THE TAILOR, BUSY WITH THE PARCEL. BROWN COULDN'T STAND THIS. "LOOK HERE," HE SAID. "YOU'RE ALWAYS TELLING ME THAT. HOW ON EARTH DO YOU MAKE A LIVING?"

THE TAILOR SMILED MEEKLY. "I MAKE A SMALL PROFIT ON THE PAPER AND STRING."

ALSO, 1975 BROUGHT THE CHANGE IN COINAGE DESIGN TO THE \$1.00, 50-CENT, AND 25-CENT COINS IN CELEBRATION OF

THE BICENTENNIAL. TOTAL DOMESTIC COINS MINTED AT DENVER FOR THE YEAR WAS 6,051,250,210. FOREIGN COINAGE THAT YEAR INCLUDED GERMAN SILVER BLANKS FOR HAITI; CUPRO-NICKEL BLANKS FOR LIBERIA; COINS FOR THE PHILIPPINES AND PANAMA (U. S. ALLOYS FOR PANAMA).

ALTHOUGH I HADN'T PLANNED TO TALK ABOUT THE DENVER MINT BUILDING PROJECT (WHICH IS CERTAINLY A DEAD ISSUE AT THIS TIME), I THINK BECAUSE THERE WAS SO MUCH SAID ON THE SUBJECT DURING MY TENURE, I SHOULD JUST BRIEFLY COMMENT. IT WAS IN 1972 A MILLION AND A HALF DOLLARS WERE APPROPRIATED FOR A MINT SITE. IN 1973, TWO MILLION DOLLARS WERE APPROPRIATED FOR ARCHITECTURAL AND ENGINEERING SERVICES, AND IN 1974 A SITE WAS SELECTED, NAMELY, PARK HILL. HOWEVER, AT ABOUT THAT TIME ANOTHER SITE WAS MENTIONED. AFTER SOME MONTHS (FEBRUARY 26, 1976) SENATOR PROXMIRE'S COMMITTEE ON BANKING AND CURRENCY HELD A HEARING IN WASHINGTON, D. C., TO DETERMINE WHAT SHOULD BE DONE ABOUT THE SITE,

AND IF, IN FACT, A NEW MINT WAS NEEDED. IT WAS DETERMINED THAT ANOTHER G.A.O. STUDY SHOULD BE MADE, AND THE OUTCOME OF THAT STUDY--TO OVER-SIMPLIFY IT--WAS THAT SAN FRANCISCO, PHILADELPHIA, AS WELL AS DENVER COULD MAKE CHANGES AND MODIFICATIONS TO MEET THE COINAGE DEMAND FOR ANOTHER FEW YEARS.

IN ACCORDANCE WITH THAT DECISION (IN 1976), A 3,500 SQUARE FOOT WAREHOUSE WAS BUILT ON THE WEST SIDE OF THE MINT PROPERTY TO PROVIDE ADDITIONAL STORAGE FACILITIES. ALSO, A 15,3000 SQUARE FOOT WAREHOUSE AT THE ROCKY MOUNTAIN ARSENAL WAS LEASED FOR FIVE YEARS FOR THE STORAGE OF COIN AND STRIP (ALSO INDIRECT MATERIAL). *

AND IT WAS IN JANUARY OF THIS YEAR THAT WE AT THE MINT BEGAN SERIOUS DISCUSSION ON WAYS TO REDUCE THE NOISE LEVEL IN THE PLANT, AND TO IMPROVE THE SAFETY AND HEALTH OF THE EMPLOYEES. A MANAGEMENT IMPROVEMENT STUDY EVOLVED, FOLLOWED BY A PLAN OF ACTION WHICH WAS SUBMITTED IN FEBRUARY

- - - - -

*Building 362. Also leased from Rocky Mountain Arsenal, Building 242--containing 41,447 sq. ft., indirect material.

TO THE BUREAU, SHOWING NECESSARY IMPROVEMENTS AND
MODIFICATIONS TO BE MADE IN THE EXISTING FACILITY,
INCLUDING OFFSITE BLANKING AND STAMPING WITHIN THE DENVER
AREA.

BEFORE I CLOSE, I WANT TO TELL YOU ABOUT AN EXTRA-
ORDINARY COLLECTION OF ORIENTAL COINS CURRENTLY ON DISPLAY
AT THE MINT. SOME ARE MORE THAN 1,000 YEARS OLD. DURING
1977 THEY WERE PLACED ON PUBLIC DISPLAY ALONG THE TOURIST
ROUTE. THE DISPLAY CONSISTS OF 7,320 COINS IN TWO SPEC-
TACULAR ABSTRACT ARRANGEMENTS AND IS ON INDEFINITE LOAN
FROM THE CITY AND COUNTY OF DENVER, AND WAS A GIFT FROM
JAPAN TO THE PEOPLE OF DENVER IN CELEBRATION OF COLORADO'S
CENTENNIAL AND AMERICA'S BICENTENNIAL. IT IS DIFFICULT
TO PLACE A REAL VALUE ON THE DISPLAY AS ANCIENT PIECES
WERE OFTEN VALUED IN TERMS OF RICE AND YEARS OF LIVING.

IN ADDITION, A MONTH OR SO BEFORE I LEFT THE MINT,
I WAS CONTACTED BY OFFICERS OF THE FIRST NATIONAL BANK

CONCERNING A NUMBER OF OLD CLARK, GRUBER GOLD AND SILVER COINS THAT WERE IN THE POSSESSION OF THE BANK. THE BANK WAS INTERESTED IN LOANING THE COINS TO THE MINT FOR DISPLAY AND I UNDERSTAND WHEN THE NEW TOUR ROUTE IS COMPLETED, THE COINS WILL BE INCLUDED IN THE MONEY EXHIBITS.

I WOULD BE REMISS IF I DID NOT MENTION THAT THE DENVER MINT, BUILT IN 1904-1906, IS A FINE EXAMPLE OF TUSCAN PALLAZZO ARCHITECTURE AND THAT WITH THE PRESERVATION OF THE DENVER MINT BUILDING IN 1972, COLORADO CITIZENS AND VISITORS TO THE DENVER AREA WILL BE ABLE TO RECALL NOTABLE HISTORICAL EVENTS OF ANOTHER ERA, FOR IT WAS IN 1972 THAT THE MINT WAS DESIGNATED AS AN OFFICIAL DENVER LANDMARK. IT IS ALSO LISTED ON THE HISTORICAL REGISTER OF LANDMARKS.

THE 1904 PORTION OF THE MINT BUILDING IS KNOWN FOR ITS BEAUTIFUL MAIN ENTRY HALL. THE MURAL PAINTINGS INSIDE

THE MAIN VESTIBULE REPRESENT COMMERCE, MINING, AND
MANUFACTURING, AND THE GREAT SEAL OF THE UNITED STATES
WAS PLACED IN THE CENTER OF THE VESTIBULE FLOOR IN THE
FORM OF A LARGE METAL CASTING; BUT, IN 1961, IT HAD WORN
SO SMOOTH, IT WAS REMOVED AND REPLACED IN MOSAIC. THE
ORIGINAL METAL SEAL IS NOW HANGING IN THE NUMISMATIC
SALES ROOM FOR ALL TO SEE.

AGAIN, THANK YOU FOR INVITING ME TO SPEAK TO YOU
TODAY AND FOR THE OPPORTUNITY OF VISITING WITH YOU.

* * * * *

Denver Mint to get one-story addition

The \$10-million budgeted for an expansion project at the Denver Mint will purchase a one-story addition, an expansion of a loading dock and some new machinery.

Mint Superintendent Nora Hussey said actual work on the

project will not begin before 1982.

"I'm looking forward to seeing the actual work begin," Miss Hussey told *Coin World*. "It can't be anything but an asset to the Denver Mint."

The Bureau of the Mint has

been mandated to make a 12 percent cut in its budget. But Mint Director Donna Pope, in an earlier *Coin World* story, said the cutbacks would not affect the Denver project.

The Denver Mint currently makes about 29 million coins

per day, five days a week, and about 21 million of them are cents.

Mrs. Pope said the four-year expansion program at the Denver facility would increase its yearly coin production capacity by two billion coins.

The original Denver Mint structure, begun in 1897, is now an historic landmark. It was built of granite. The new building will be made of some harmonious material.

Neil J. Ferrell, manager of the Mint expansion project for the engineering firm of CH2M Hill, said the new addition will not be built of granite because the stone is too expensive.

Previous Mint additions, built in 1935, 1945 and 1963, do not match the original gray granite structure, according to a story in the *Rocky Mountain News*.

Ferrell said the new building will be attached to the 1945 addition of yellowish brick.

Joseph Lataitis, the Mint's electrical engineer, said the new structure probably will not replace the temporary metal buildings now in the Mint's parking lot and yard.

Lataitis said the new addition will house the Mint's existing punch presses, and will be used for storing rolled metal sheets.

Currently most of the sheets are stored in the Mint's south parking lot.

The space being vacated by the punch presses will be occu-

pied by machines which round the edges of coins.

Ferrell said the basement of the addition will contain sophisticated conveyor equipment. The size of the visitors' gallery will also be increased.

Hussey said none of the Mint's 390 employees is expected to lose their jobs because of the increased automation.

The design phase, for which Ferrell's company was chosen from among six finalists, is expected to take six months.

Details of CH2M Hill's contract are still to be negotiated. Mint officials say they do not know yet how the \$10 million will be divided between construction and equipment.

Ferrell said CH2M Hill will be assisted by several consultants. They include Tetranetics Inc., Boulder, which specializes in noise and vibration control; Denver architect Peter H. Dominick Jr., who specializes in work on historic buildings; and Evans Kuhn & Associates, which will work on site engineering and assist with supervision of the project.

Dominick is the son of the late Republican Senator from Colorado, Peter H. Dominick, who died March 18, 1981.

"Coin collecting isn't the only important thing in my life."

"Some collectors say this isn't to sell. But for me, the time is others wait for an ultimate peak — who knows when that will come — wisely years ago — and today I have the money. If I sell now, I'll meet my need."

"You see, I know what the market is. But I also know what I'm doing in my life, my family, and my finances. I'm selling a substantial coin collection at the Metro New York Sale in 1982."

This collector won't be the only one at the 1982 Metro Sale. Traditional coin shows are a strong show with a well-balanced selection. I don't know a better place to sell.

If you need help in analyzing your collection, look for the following articles in today's rare coin auction: New England Rare Coin Auction

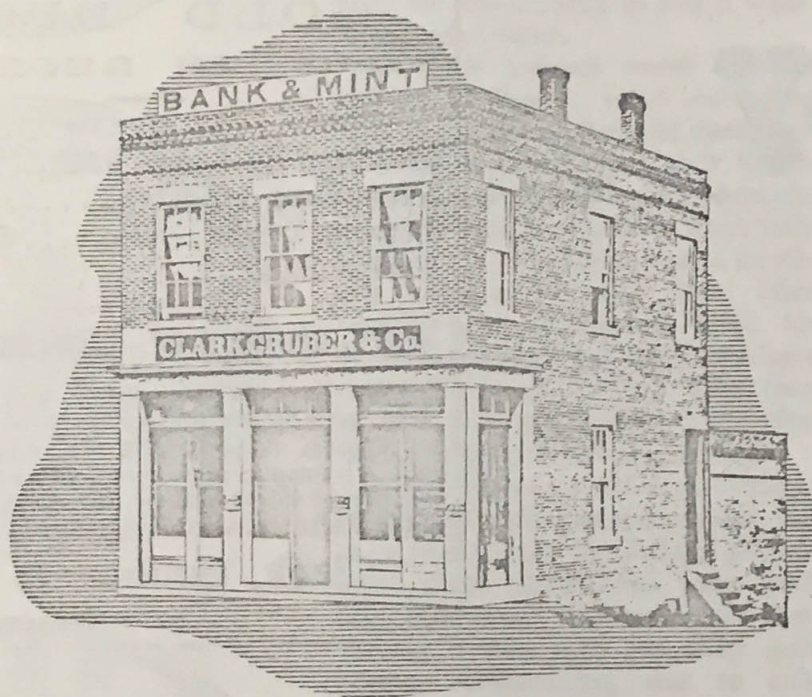
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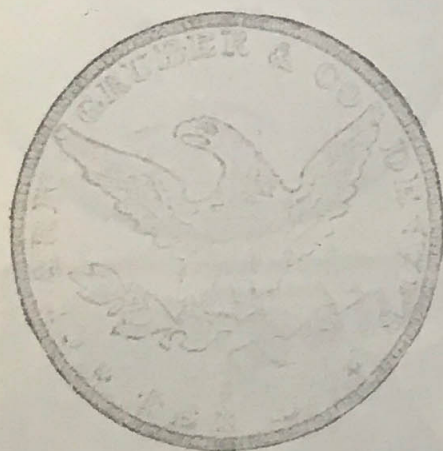
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CLARK, GRUBER & CO.

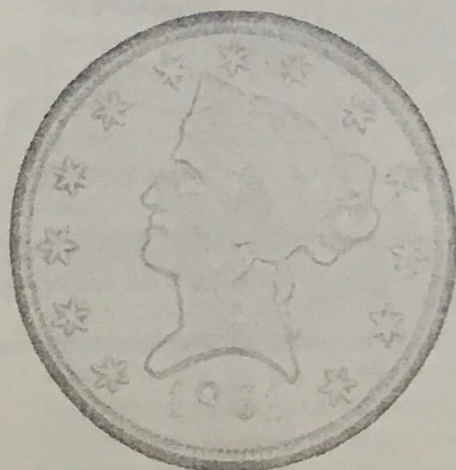
Mint One



by Ted Schwarz



Coin Photo Courtesy
Bowers and Ruddy Galleries, Inc.



The first men to come were loners. They knew how to survive in the wilderness, depending on the water, the land and the animals for the necessities of life. Most of them had been drawn to the area by rumors of gold. They knew others had struck it rich in California and Nevada, so why didn't they have a chance in the area known as Colorado? The year was 1858, and it was going to be the changing point for a great many lives.

The first gold was found in the gravel, small flecks that could be washed out during placer mining. It wasn't much, but it kindled the hopes of the men in the Rockies and of others, still back East, who caught the gold fever from the reports trickling out of Colorado.

By the following year, the rich lodes of gold began to surrender their treasure. A new town called Denver was established, and the boom was on.

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It is one thing to live in the wilderness, quite another to be part of a rapidly growing community. In the wilderness a man needs a knife, some tools and perhaps a gun to help him survive. But in town, a man was not on his own. There were a variety of services being offered, from drinks at a bar to the goods in a general store. If he wanted anything beyond the clothes on his back and the food he killed, he had to pay for it. Unfortunately, few of the early arrivals had any money, for money was not a commodity they originally needed. Those who did bring specie did not have nearly enough to help a merchant transact his business.

One approach to paying bills was to use gold dust. Many men carried pouches of dust and a small scale wherever they went, not trusting merchants to weigh the gold honestly.

Prices in town matched the rising af-

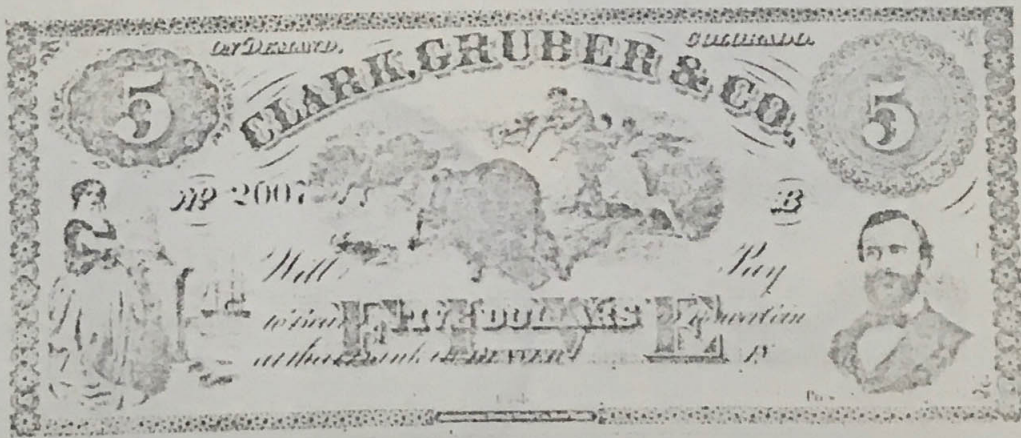
A. M. CLARK. E. H. GRUBER, M. E. CLARK.

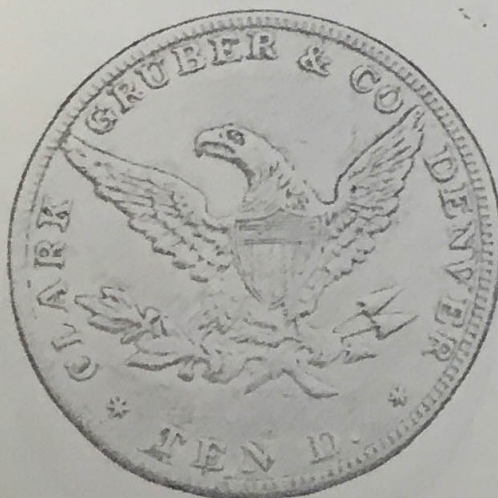
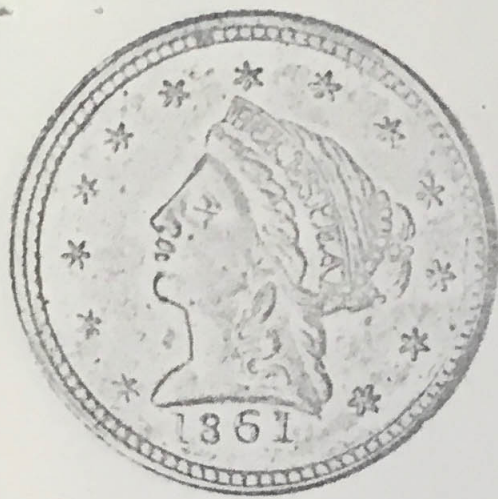
CLARK, GRUBER & CO.,
DENVER CITY, AND LEAVENWORTH, K. T.,
BANKERS.
DEALERS IN
Exchange, Currency,
AND
GOLD DUST.
DEPOSITS RECEIVED.

WE DRAW ON
American Exchange Bank, .. New York,
Allen, Copp & Nesbit, St. Louis,
Gilmore, Dunlap & Co., Cincinnati,
Marine Bank, Chicago,
AND
CLARK, GRUBER & CO., LEAVENWORTH CITY.

WE have in connection with Banking, a
MINT! and are prepared to Exchange
our **Coin for Gold Dust.** The native
gold is coined as it is found, alloyed with silver.
The weight will be greater, but the value the same
as the United States Coin of like denomination.

Clark, Gruber & Co.,
7.17 **Denver City.**





Coin Photos by Larry Stevens Coinpics

fluence of many of the miners. At first, the men were earning \$3 to \$10 a day panning for gold, but later, many took in \$600 a week or more. A report from a missionary who had gone to Denver to save souls revealed that flour was \$15 a sack, milk was 30 cents a quart, butter ranged from 75 to 85 cents a pound and eggs were \$1.50 a dozen. By 1864, these costs had skyrocketed so that flour was \$25 a sack, eggs were \$2 a dozen and butter ran \$2 a pound. Boarding house meals went from \$8 a week for the tenants to \$15 a week. Rooms were extra.

To make matters worse for the citizens of Denver, most merchants took advantage of the gold dust transactions. They might let their fingernails grow a little long, for example, catching dust underneath when they weighed the gold taken from a pouch. Not only would they then have received the established price for goods being sold, they would also have the extra profit of the gold they scraped from under their nails after the customer left with his purchase.

It was obvious that some common medium of exchange was needed, but there was no way the Federal government could supply the town with necessary specie. The answer for Denver, as it had been for other gold mining communities, was to coin money privately.

The most famous of the private minters was the firm of Clark, Gruber and Company, which would eventually become the Denver branch of the U.S. Mint. The firm was comprised of attorney Milton Clark, his brother Austin and Emanuel Gruber. They were bankers who saw the need for coins and were tired of having to ship gold dust back East for coining.

Emanuel Gruber recalled those years during a 1904 interview with the Denver Times. "My firm was one of the heaviest purchasers of gold dust in the early days. And when we bought a large quantity of dust, we had to ship it to the states to have it coined into money. This was a rather expensive proceeding, as there were only stage coaches and pony expresses reaching this city in those days, and we had to pay 5 per cent of the value of the dust as an insurance against loss in transit and another 5 per cent expressage. Our dust was out of our hands anywhere from three weeks to three months, and oftentimes the cash we would have in transit would total nearly \$300,000," the 71-year-old Gruber said.

The bankers decided they could save a small fortune by making their own coins in Denver. Milton Clark began researching the laws to see whether there was anything illegal about establishing a private mint, and came to the conclusion that, so long as the coins were equal to or better than the products of the United States Mint, they were well within the law.

The Mint was built in 1860, the most substantial in the town. It was two stories of brick with a stone basement. During threats of Indian attack, it was common for the women and children to take refuge in the structure, knowing they would be safe from all danger.

Coining equipment was purchased, identical to that used in the Philadelphia Mint. They wanted a quality operation to insure the money would be accepted.

In the first year of operations, only \$10 and \$20 gold pieces were coined. "Our pieces differed little from those of Uncle Sam," Gruber explained. "We had the Goddess of Liberty on the face of them, but in the fillet that bound her hair, instead of the word 'Liberty,' we placed the words 'Pike's Peak,' and on the obverse side, instead of the words, 'United States of America,' we stamped 'Clark, Gruber & Co.' In this year (1860), we coined only \$10 and \$20 gold pieces. We made them of virgin dust, without any alloy, and they were really worth more than those of the government, which were alloyed.

The solid gold coins proved rather soft, so a change was made during the second year of operations. A small amount of alloy was added to the metal.

In 1862, with the war between the states rising in fury, the Mint owners decided to not make coins during the period. Instead, they produced small gold bars with the firm name, the ounces of gold each bar contained and the cash value. So respected was the firm that the ingots were used in trade throughout the world.

A lesser known aspect of the Clark, Gruber & Co. mint operations was the fact that they also produced paper money for use in the town, issuing and redeeming it at fixed values, never letting the price fluctuate in relation to gold as the paper money of both the Union and the Confederacy tended to do.

In the first two years of operation, the mint coined and printed more than \$3 million, all of which was badly needed by the people. Numerous diver-

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sions had been added to the Denver community, as civilization of sorts came to the isolated area.

The Apollo Hall was the site of a culturally enriching series of lectures, beginning with one delivered by Kit Carson. A Professor Goldrick formed a chess club, and a Masonic Hall was built in the town.

Language was of interest to the people because many of the men attracted to the gold fields spoke only Spanish or French. A clerk for the Jefferson Territory senate started a night school to teach the people these languages.

The professor and a man named E. A. Pierce founded a circulating library and formed the first Sunday school. A man named Dave Moffat founded a book and stationery store which made him quite wealthy through the sale of mining texts and dime novels. There was also a post office and a street filled with claim agents, doctors, lawyers and surveyors.

Religion of sorts was brought to the community which was a hotbed of "sin and degradation." Saloons operated 24 hours a day, and a prostitute could always be found to help a man celebrate his success in the gold fields. To counter this work of the devil, the Reverend Joseph hung a hand painted sign on a log cabin and opened St. John's Episcopal Church. Community reaction was not overwhelming. His first sermon was delivered to just two people. Undaunted, he opened with the words, "Where two or three are gathered together in My name, there will I be, in the midst of them."

There were further setbacks for the minister. Every time he began to gain a few parishioners, something would happen to a few of them. A typical sampling of 12 of the earliest members of his congregation showed one who committed suicide, one who died from alcoholism, two who were executed for murder and five who were shot. The other three apparently either heeded the word of the Lord or did not pay for their sins in this life.

Pay as you go was the law of the town. Miners were notorious for being either rich or broke. If a man needed credit, he was generally considered a deadbeat who might never strike it rich. For a dollar you could have a bottle of beer and a dance with a "scantly clad" hurdy-gurdy girl. A Clark and Gruber \$5 gold piece brought him champagne with his wench. After a night of merrymaking, the miner

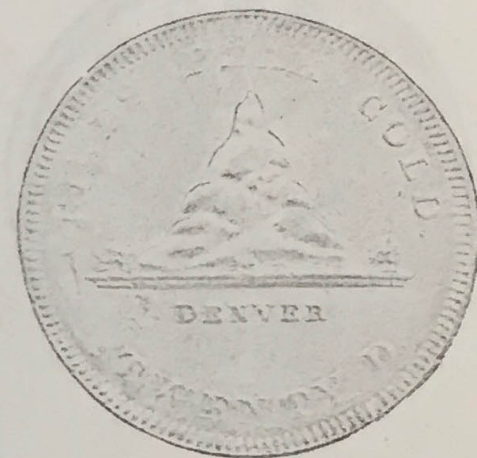
might place yet another gold piece in the hands of the girl. She would then give him a key to her room, scratching the number in a corner of the metal. Later, when he would try to locate her, he would have the sobering experience of finding that the number was a phony and he had no idea which room might be hers.

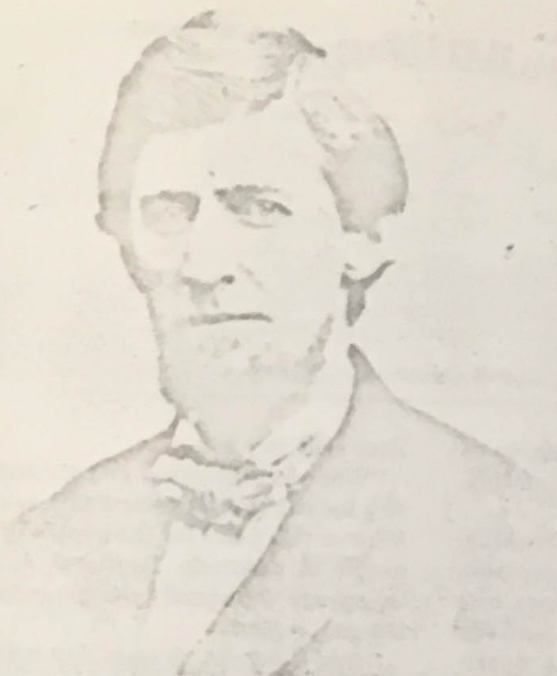
More gold was needed to pay Madame Mortimer, the self-styled "Clairvoyant Physician" of Denver. With women fairly scarce in the new territory and a man's love affair, even with a dance hall girl, being a serious matter, the Madame's specialty was curing "diseases of the heart." She solved many a problem before resolving her own by getting married and retiring to a life of domestic bliss.

Beyond the need for coinage, Clark and Gruber coins were popular because they were of high quality. The Rocky Mountain News for August 29, 1860, carried an article which best describes the situation. It read, in part:

"Our Mint, Clark, Gruber & Co., melted and coined last week about \$18,000 in \$10, \$5, and \$2.50 pieces. As specimens of coinage these pieces are far superior to any of the private mint drops issued in San Francisco, and are nearly as perfect as the regular United States mint issues. The faces of the \$5's and \$2.50's are a good imitation of the government coinage, the head of the Goddess of Liberty, surrounded with thirteen stars, with the firm name of 'Clark & Co.' occupying the head tiara. The reverse of the coin is occupied, of course, with 'our noble bird' encircled by the words, 'Pike's Peak Gold, Denver, 2-1/2D.' Altogether it is a creditable piece of work, and we hope to see hosts of it in circulation before the snow flies. The fineness of this coin is 828-1/2; and the excess of weight over U.S. coin is twenty-three grs. in a ten dollar piece. The value in gold is the same as government coin of like denomination, with an additional value in silver alloy equal to near one per cent. Deduct the cost of coining at the U.S. Mint, about one half per cent, and the actual worth of Clark & Co.'s coin is one half per cent more than any other coinage."

As can be seen, there were several reasons for the popularity of the coins. Not only were they needed, they were also well made and intrinsically for more stable than anything the Federal government was able to produce.

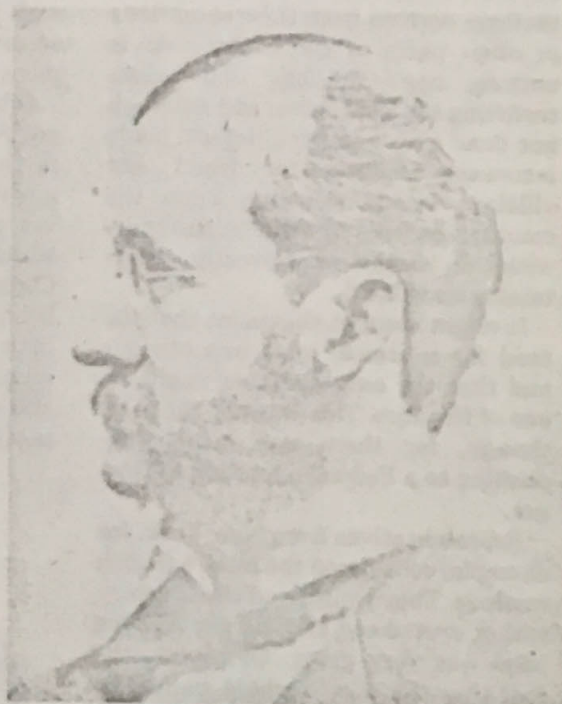




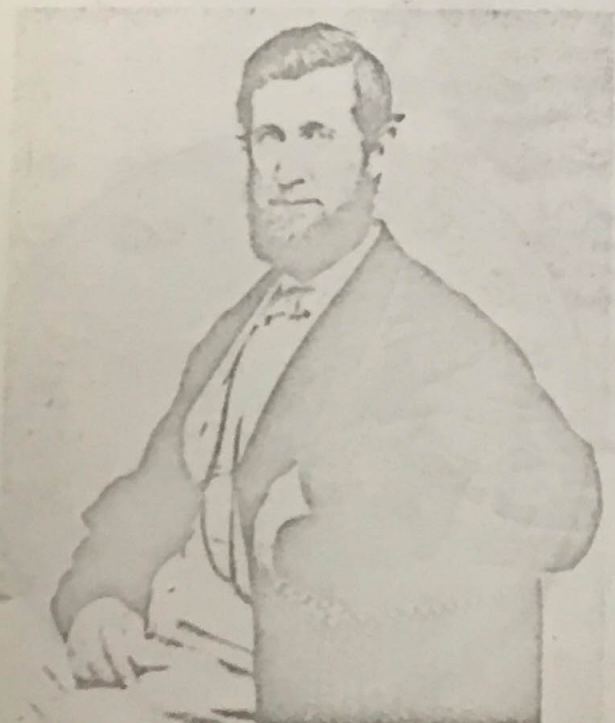
Milton E. Clark

Clark & Gruber gold pieces circulated throughout Colorado, where they were considered the equals of standard issues. After the first year, the company began putting one per cent more gold in their coins than did the Federal government, making the product even more popular. The officials reasoned that this additional gold might represent the amount that would be lost due to wear when the coins were carried to different areas. They wanted their coins to always be at least the equals of the United States gold issues, so they increased the quality to allow for damage in transit.

Unlike other private mints, the Clark, Gruber & Co. operation was not meant to be a profit making venture.



Emanuel H. Gruber



Austin M. Clark

It was a service born of necessity, which the bankers would have preferred not to provide if coinage could have been obtained through normal channels. For this reason they strongly favored the idea of the U.S. Government establishing a regular branch mint in their city. The area of Colorado was becoming a territory, and they felt the branch mint would be most practical.

Demand for a branch mint came at a bad time. With the Civil War raging through most of the nation, Congress was not too concerned with the problems of Denver. Money to produce such a facility was scarce, and the issue received low priority from everyone except the citizens of the

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community which would be most af-
fected. So serious were the Coloradans
that one citizen even suggested the
residents of Denver use their own
money, perhaps through bonds or a sub-
scription plan, to pay for the support
of a branch mint until such time as the
war ended and the economy returned
to normal.

Colorado Territory had between
25,000 and 30,000 people by spring,
1862. It was a booming mining area
overflowing with gold dust the people
needed to have made into coins. The
Congressional Committee of Ways and
Means, well aware of Clark and
Gruber's operations, commented:

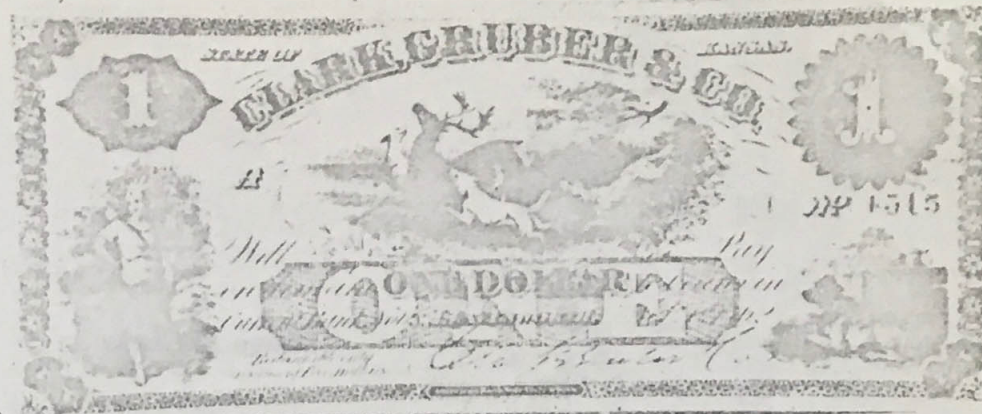
"The impropriety of such establish-
ments (private mints) would be very
obvious, even without the aids of ex-
perience derived from their operations
in other parts of the country. It is
nothing more or less than coun-
terfeiting the legal coins; and although
not done with a criminal intent, lends
increased facilities for fraud and
villainy; beside inflicting upon the
country the evils of metallic currency,
with no means of correctly ascer-
taining its value."

It might seem at this point that the
need for a branch mint was obvious
and that the only question might be
one of finances. This was not the case,
though, for there was strong op-
position to a Federal operation in Den-
ver.

Representatives from New York, for
example, considered the mint a foolish
expense. They considered the territory
rather uncivilized and did not feel the
need was very great. Of course, the
fact that the New Yorkers wanted to
see a branch mint established in their
own state may have influenced their
evaluation of the needs of Colorado.

Congressman Hiram Bennet made
the branch mint a matter of national
concern when he introduced a bill
calling for its establishment. The date
was December 19, 1861, and the bill
slowly made its way through both
houses of Congress, becoming ef-
fective on April 21 of the following
year. A \$75,000 fund was made
available and a commission was
established to decide whether it would
be more practical to buy the Clark,
Gruber & Co. mint or to build a new
facility somewhere else in the city.

The first report on the facilities of
the private mint was made by Clark,
Gruber & Co., which was extremely
anxious to sell the operation. It listed
the equipment on hand and stressed



that it would take only the addition of
U.S. dies to begin production of U.S.
coins.

At the time of the report, the Mint
was actually confined to the basement
of the building. The ground floor was
used for banking transactions, and the
second floor was divided into apart-
ment homes.

Once the Denver miners knew the
government was seriously interested
in their problems, they expected im-
mediate action. But the people of Den-
ver were isolated from the Civil War,
which preoccupied the members of
Congress. The low priority mint was
being handled whenever there was a
little extra time. Finally, the com-
munity became fed-up with the wait
and drafted a resolution stating their
position and demanding some action.

They said, in part:

"Whereas, Congress has passed an
Act for the establishment of a branch
Mint at this place for the benefit of the
people of Colorado Territory, and to
encourage the speedy development of
her gold region.

"And Whereas, at least five millions
of dollars per annum are now being
taken out of our mines, of which
amount about one and one-half
millions of dollars are bought by
bankers and gold dust traders at a
discount of at least seven per cent on
its real value, amounting in the
aggregate to one hundred and five
thousand dollars yearly, and at least
one-half million of dollars more is in
circulation as currency, on which there
is a loss of 10 or 12 per cent in hand-
ling, equivalent to fifty thousand





by Maurice M. Gould, FRNS

The Old Frontier of Numismatics

The colonial Nova Constellatio patterns were the brainchild of Gouverneur Morris. On a decimal ratio, one hundredth would be the lowest silver coin, which might be called a "cent," containing 25 grains of fine silver and two grains of copper, and weighing one pennyweight and three grains. Five of these would make a quint or five hundred units, and ten would make a mark or a thousand units.

Morris consulted with Thomas Jefferson, who thought the smallest fractional division was too minute for a unit. He proposed to transfer that denomination to the largest silver coin, containing one thousand of the units first proposed. The only question then remaining was whether the dollar or this coin was best for the unit.

Subsequently, Morris remodeled his plan and used for his unit an amount equal to 12 shillings and 6-pence sterling, which he called a "pound." He then divided this by ten, making one pound equal to a thousand, one shilling to a hundred, one penny to ten, and one doit to one. Eventually, Jefferson's suggested changes of Morris' system were followed, which might be the reason that the patterns of the proposed coins are scarce.

The patterns are all dated 1783. The obverse has an eye in the center, the symbol for Supreme Power. The rays go out to 13 six-pointed stars for the original states of the Union. The legend reads, "Nova Constellatio." The reverse has a laurel wreath, the legend "U.S. Libertas Justitia," the letters "U.S." with the denomination underneath, and the date, "1783."

These pieces are among the rarest in the numismatic world. The mark

and the two types of quints are unique and the bit has only two pieces known.

Before the beginning of the new decimal system of coinage in gold, silver and copper as devised by Morris, a great many systems and methods were discussed until a decision was made to make a set of patterns. These were presented to Robert Morris, who at that time was in charge of the finance department.

As these pieces were the first patterns for a United States coinage, they have great historic significance.

Nova Constellatio coppers were issued in 1783 and 1785. They come with the blunt and pointed rays and there are varieties with the small "U.S." and large "U.S."

There are a few rare pieces known dated 1786. One was uncovered in Maine with some other coins, covered with debris. When it was cleaned, it turned out to be the rare date. This particular piece was struck from an unusual planchet, a mixture of brass with the copper, which showed readily on both sides of the coin.

The coppers have the same style obverse as the silver, with an eye, etc. The reverse has "U.S." in the center, the legend, "Libertas Justitia" and the date. Some pieces in the Immune Columbia series have the Nova Constellatio obverse and are very rare, with the specimen in gold being unique.

The copper tokens were struck in Birmingham, England, for use in this country. The dies were cut by Wyon, the outstanding medalist and die sinker. A great many of these pieces were produced, as more than 40 tons of copper were minted from only one die.

dollars per annum, making on two millions loss to the people of one hundred and fifty thousand dollars annually, or twelve thousand nine hundred and seventeen dollars per month.

"And whereas, on the remaining three millions that is not shipped east, at least five per cent is lost to the shipper in expressage and time, making an additional loss of one hundred and fifty thousand dollars, footing up a total loss of three hundred and fifty thousand dollars annually, or twenty-five thousand four hundred and fifteen dollars loss, which the people are now sustaining every month by reason of the fact that the Mint is not in operation.

"And whereas, believing that the private Mint of Clark, Gruber and Co., is sufficient to answer all the present wants of the Government; and believing that it can be purchased at a fair price and put into operation at once, thereby saving the great loss above mentioned to the people every month, and without which we may have to be deprived of the benefits of a mint for two years or more, therefore.

"Resolved, that it is the opinion of this meeting that if the Mint is not put into operation before the next meeting of Congress, there is great danger of losing the entire appropriation, by a defeat of the act of Congress by which it is granted..."

The government finally bowed to the pressure from the people of Denver. A decision was made to purchase the Clark, Gruber and Company Mint, complete with all equipment, for \$25,000. The offer was made and accepted on November 25, 1862, with the final transfer of all property being made in April of the following year. The previous owners were asked to continue operating the mint until new mint officers could be appointed.

Ironically, after all the time and trouble spent to establish the Denver branch mint, coin production did not begin as anticipated. Federal mint operations were delayed until February, 1906. In the interim the mint building was a depository for public funds and an assay office for purchasing bullion.

And so the Clark, Gruber & Co. coins of necessity became the forerunner of the legal tender coinage produced on the same facilities. The Denver Mint, begun by bankers trying to serve the needs of the gold miners, became an important part of government coinage operations. ©



Contains
Standing Liberty
Dime, 1906
Buffalo, 1906
VG or Better

INVEST

Obs

Half Cent
Large Cent
5 Cents
Copper Nickel
Two Cent Piece
Nickel 3c
3c Piece Silver
Shield Nickel
Seated 1/2 Dime
Buff Dime
Seated Dime
20c Piece
Buff Quarter
Seated Quarter
Buff Half Dollar
Barber Half Dollar
Seated Lib. 1/2 D.
Seated Lib. Dollar
Trade Dollar

AVERA

Indian Cents (50)
Liberty Nickels
SPECIAL HOLO
Each roll with
1921 D on top
Buffalo Nickels
Buffalo Nickels
Roosevelt Dimes
Mercury Dimes
Standing Lib. Q.
Barber Half Dollar
Walking Liberty
Franklin Half Dollar
Kennedy 1964
Silver Dollars
Silver Dollars
Silver Dollars

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1971 Mint Set
1971 S Proof Set
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1938-D Nickels
10 pieces
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